

**Final  
Long-Term Monitoring Event Report  
Summer 2014**

**Chemical Insecticide Corporation Superfund Site  
Operable Unit 4 – Groundwater  
30 Whitman Avenue  
Edison Township, Middlesex County, New Jersey**

*Prepared for:*

U.S. Army Corps of Engineers, Kansas City District  
601 East 12<sup>th</sup> Street  
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## LIST OF ACRONYMS AND ABBREVIATIONS

AGI	Additional Groundwater Investigation
BGS	Below Ground Surface
BHC	Benzene Hexachloride
CIC	Chemical Insecticide Corporation
CM/SEC	Centimeters/second
COC	Contaminant of Concern
Conti	Conti Environment & Infrastructure, Inc.
CSM	Conceptual Site Model
CTI	CTI and Associates, Inc.
DESA	Division of Environmental Science and Assessment
1,2-DCA	1,2-Dichloroethane
DO	Dissolved Oxygen
DOT	Department of Transportation
DQCR	Daily Quality Control Report
EDD	Electronic Data Deliverable
FT	Foot
GPD/FT	Gallons/day/ft <sup>2</sup>
GWQS	NJDEP's Class IIA Groundwater Quality Standards
HDR/OBG	HDR/O'Brien & Gere
KCD	Kansas City District
LTM	Long-Term Monitoring
LTMP	Long-Term Monitoring Plan
LTRA	Long-Term Response Action
MCL	Maximum Contaminant Level
ML/MIN	Milliliters/Minute
MSL	Mean Sea Level
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NJDEP	New Jersey Department of Environmental Protection
NJDOT	New Jersey Department of Transportation
NPL	National Priorities List
OBG	O'Brien & Gere
ORP	Oxidation Reduction Potential
OU	Operable Unit
PCE	Tetrachloroethene
QA	Quality Assurance
QC	Quality Control
RG	Remediation Goal
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SVOC	Semi-volatile Organic Compound
TAL	Target Analyte List
TCE	Trichloroethene
TCL	Target Compound List
TOC	Top of Casing
USACE	United States Army Corps of Engineers

USEPA  
VOCs

United States Environmental Protection Agency  
Volatile Organic Compounds

## 1. Introduction

CTI and Associates, Inc. (CTI) performed long-term monitoring (LTM) services as part of Groundwater Operable Unit (OU) 4 at the Chemical Insecticide Corporation (CIC) Site in Edison Township, Middlesex County, New Jersey, under Long-Term Response Action (LTRA) Contract No. W912DQ-11-D-3001, Delivery Order 0007 with the U.S. Army Corps of Engineers, Kansas City District (USACE-KCD). USACE-KCD provides technical assistance to U.S. Environmental Protection Agency (USEPA) Region II under an Inter-Agency Agreement.

The CIC Site has been addressed in the following four remedial phases to date:

- OU1, completed in 1994, was an interim remedy to control contaminated surface water runoff from the Site;
- OU3, completed in 1997, was a final remedy to address contaminated soil and sediment in offsite creek areas;
- OU2, completed in 2005, was a final remedy to address contaminated surface and subsurface soils at the Site and surrounding properties; and
- OU4, currently in progress, is the final remedy to address contaminated groundwater and consists of LTM and institutional controls.

USEPA issued a Record of Decision (ROD) for OU4 in December 2003 to address residual groundwater contamination at the CIC Site and surrounding properties including Metroplex Corporation and Total TEC to the east, Morris Companies (formerly Allied Chemical Company) to the south, and Muller Machinery to the west. The Site and these surrounding properties are collectively defined as the CIC Study Area and encompass approximately 70 acres. The site location is presented on Figure 1-1. The OU4 ROD was based on data collected up to 2002 and prior to the implementation of the OU2 remedial action at the CIC Study Area. The major components of the selected remedy for OU4 include:

- Instituting controls to restrict the installation of wells and the use of groundwater in the area of groundwater contamination; and
- Implementing a long-term groundwater sampling program to monitor the nature and extent of contamination and assess the migration and potential attenuation of the plume over time.

The New Jersey Department of Environmental Protection (NJDEP) deferred their concurrence with the OU4 ROD until the OU2 remedial action could be completed and the effects of that remedy evaluated through the proposed LTM program. NJDEP stated that future concurrence with the OU4 ROD would be based on the monitoring data collected after the completion of the OU2 remedial action and the evaluation of any additional studies needed to more accurately predict the expected time frames needed to reach remediation goals in groundwater.

## 1.1. Purpose and Scope

This project is currently in the LTM phase to meet the objectives of the OU4 ROD (monitor the nature and extent of contamination and assess the migration and potential attenuation of the plume over time). To date, thirteen LTM sampling events have been conducted as follows:

- Additional Groundwater Investigation (AGI)/1<sup>st</sup> Quarter LTM Event – July/August 2007;
- 2<sup>nd</sup> Quarter LTM Event – December 2007;
- 3<sup>rd</sup> Quarter LTM Event – March 2008;
- 4<sup>th</sup> Quarter LTM Event – June 2008;
- 5<sup>th</sup> Quarter LTM Event – September 2008;
- 6<sup>th</sup> LTM Event – March 2009;
- 7<sup>th</sup> LTM Event – December 2009;
- 8<sup>th</sup> LTM Event – December 2010;
- 9<sup>th</sup> LTM Event – July 2011;
- 10<sup>th</sup> LTM Event - March 2012;
- 11<sup>th</sup> LTM Event - Winter 2012/2013;
- 12<sup>th</sup> LTM Event – Fall 2013; and
- 13<sup>th</sup> LTM Event – Summer 2014.

Groundwater sampling at the CIC Site is conducted in accordance with the *Final Long-Term Monitoring Plan* (HDR/O'Brien & Gere, October 2009). This plan was prepared as a formal mechanism and timetable for assessing the extent and movement of groundwater contamination across the CIC Study Area over the course of the LTM program.

Based on the stable groundwater plume at the CIC Study Area, the LTM program is scheduled to continue for seven years (2009 through 2015) with sampling conducted at nine month intervals. This sampling frequency (representing an approximate annual basis) will allow for sufficient collection of data during different seasons to allow for a complete assessment of groundwater elevation, contaminant levels, and plume migration over time. The LTM data also provided current information for USEPA to complete the 2014 5-year review.

This report documents the results of 13<sup>th</sup> LTM groundwater monitoring event (Summer 2014 LTM Event) performed in September 2014.

## 1.2. Report Organization

The remainder of this report contains descriptions and results of the activities performed as part of the Summer 2014 LTM Event. Brief summaries of the remaining sections are presented below.

- **Section 2 – Study Area Background and Physical Setting** describes the physical setting of the CIC Study Area based on previous investigations and reports and summarizes the investigative and remedial activities completed to date.
- **Section 3 – Scope of Monitoring Event** summarizes the LTM Event field work completed.
- **Section 4 – Monitoring Event Results** presents the groundwater analytical results.
- **Section 5 – Conclusions & Recommendations** discusses the conclusions based on the analytical results and groundwater flow direction from the Summer 2014 LTM Event, summarizes data

trends, and presents the upcoming schedule for the project. This section also discusses any recommendations based on the evaluation of the data.

## **2. Study Area Background and Physical Setting**

This section summarizes the physical setting, past operations, and previous investigative and remedial activities at the CIC Study Area. Figure 1-1 depicts the CIC Study Area and the location of the existing monitoring well network.

### **2.1. Site Description and Location**

The CIC Site is a fenced 5.7-acre property located at 30 Whitman Avenue in Edison Township, Middlesex County, New Jersey. It is bounded on the north by Interstate 287, on the east by a 35-foot wide Public Service Electric and Gas easement and active commercial properties owned by Metroplex Corporation and Total TEC, on the south by a large warehouse owned by Morris Companies and property once occupied by the former Allied Chemical Company, and on the west by a vacant industrial property formerly owned by Muller Machinery and the Conrail/CSX railroad right-of-way. The CIC Study Area encompasses the Site and these surrounding neighboring properties where investigations and remedial activities have been conducted to date. The CIC Site is currently owned by Edison Township, is grass covered, and contains rip rap channels and grass-lined swale to allow for storm water runoff and drainage.

The nearest residential properties are located approximately 300 to 400 feet away from the Site and are separated from the Site by either Interstate 287 to the north or the Conrail/CSX railroad right-of-way to the west. There are no permanent surface water bodies on the CIC Site. After heavy precipitation, storm water runoff drains toward the northeast corner of the Site where it discharges into an underground conduit designed to direct storm water to the existing storm sewer line located along the southbound lane of Interstate 287. The CIC Study Area drains to an unnamed tributary of Mill Brook, located southeast of the CIC Study Area, which flows into the Raritan River approximately four miles downstream of the Site. Both the unnamed tributary and Mill Brook run through residential areas. The residents near these tributaries and the residents directly surrounding the Site all obtain potable water from a public water supply system located approximately eight miles from the Site.

Potential contaminant source areas specific to the CIC property include former process water lagoons or impoundments, former areas of buried drums located on the eastern property boundary, and a former septic pit located on the western property boundary. Several former waste drum storage and debris areas, along with former remnant structures such as pipes, conduits, and tanks also appeared to have been the potential sources for specific contaminants. These collective sources are specific to the CIC Site itself and were not found elsewhere (or were found to be limited) in the CIC Study Area.

### **2.2. Environmental Setting**

The physical characteristics presented in this section represent a compilation of data gathered and reported during the various phases of field investigation activities to date. This section is primarily based on information gathered prior to the implementation of the OU2 remedy to address contaminated surface and subsurface soils at the Site and surrounding properties. Information on changes to drainage and geology in the CIC Study Area as a result of the soil removal program is also presented in this section, and was obtained from Conti Environment & Infrastructure, Inc.'s *Remedial*

*Action Report* (Conti, September 2007). Finally, data gathered during the AGI performed by HDR/O'Brien & Gere (HDR/OBG) in August 2007 (HDR/OBG, September 2008) in support of updating the conceptual site model (CSM) is discussed in this section.

### **2.2.1. Topography**

The CIC Site itself is situated on a flat lying property at an elevation of approximately 115 feet relative to mean sea level (msl). As a result of the OU2 soil remedy, this area is now graded and gently slopes to the east toward the Metroplex Corporation property. Further east, the land surface flattens out and slopes very gently to the east-southeast. A steep grade sloping down to the roadbed of Interstate 287 (approximate elevation of 92 to 94 feet msl) is located immediately north of the CIC Site. To the west, the land surface rises gradually before sloping downward to the excavated Conrail/CSX railroad grade. Directly beyond the fence to the south is an excavated railroad bed which was filled in during the OU2 remedy, and separates the CIC property from the Morris Companies property.

### **2.2.2. Hydrology**

On a regional scale, the CIC Site itself occupies a high point in the northwest portion of the Mill Brook drainage basin. The ultimate receiving water body is the Raritan River located approximately four miles southwest of the Site. Historical topographic maps and aerial photographs indicate that the Mill Brook watershed has undergone tremendous change over the past 50 years, experiencing a combination of expressway construction, business office, manufacturing, industrial, and residential development. In general, the CIC Study Area was once wetlands and substantial filling of the CIC Site is evident as early as 1939.

In the 1940's and 1950's, surface water originating on the CIC Site drained by overland runoff through several distinctly observable drainage ditches eastward through the unnamed tributary to Mill Brook. Prior to the installation of the interim cap in 1994, surface conditions at the CIC Site included puddles, ruts, and sumps in which standing water accumulated, particularly after heavy or persistent precipitation. Runoff from precipitation that did not infiltrate into CIC Site soils flowed to the unnamed tributary via a drainage ditch.

The average annual yearly precipitation total in New Brunswick is 45.50 inches, with August (4.90 inches) the wettest month, and February (2.96 inches) the driest. Precipitation is generally well distributed throughout the year. However, some year-to-year variation in amounts recorded in late summer and early autumn may result from the northward passage of storms originating in the tropics. During years in which these seasonal storms occur, annual precipitation totals tend to be higher than normal and intense rain for short periods increases. Based on rainfall-intensity return periods from 1913 through 1951 for Trenton, New Jersey, approximately 30 miles south of the CIC site, a rainfall intensity of 1 inch per hour for a duration of 2 hours may be expected once every 5 years.

Currently, there is no uncontrolled drainage from the CIC Site and there has been no evidence of flooding observed during the groundwater sampling events. As part of the restoration phase of the OU2 remedy, a headwall and culvert drainage structure were engineered and installed in the northeast portion of the property to direct storm water to the existing storm sewer line running along Interstate 287. This allows storm water to flow into the drainage swale adjacent to the southbound lane of Interstate 287. A riprap swale was constructed on Site to direct storm water to the drainage structure.

A grass-lined drainage swale was also constructed to drain storm water to the riprap swale from the southern portion of the CIC Site. These surface drainage features are presented on Figure 1-1.

### 2.2.3. Geology

The CIC Study Area lies on the approximate boundary between the Atlantic Coastal Plain physiographic province and the Triassic Lowlands in the southeastern portion of the Piedmont physiographic province. Regionally, the Triassic Lowlands are characterized by underlying bedrock of northwestward sloping sedimentary bedrock deposits of shale, siltstone, and sandstone expressed at the surface by gently rolling lowlands. The sedimentary deposits are occasionally interrupted by basaltic lava flows and diabase intrusions which are more resistant to weathering than the sedimentary deposits and are subsequently expressed as topographic ridges. The Watchung Mountains, located approximately seven miles to the northwest, are the closest of these ridges. The coastal plain sediments consist in part of alternating layers of unconsolidated sands and clays, dipping gently toward the southeast.

In the vicinity of the CIC Study Area, bedrock consists of the Brunswick Formation of the Triassic age Newark group. The Brunswick Formation typically consists of soft, reddish-brown shale with some interbedded siltstone and sandstone. The formation is often highly fractured and easily weathered to reddish-brown clay. There is typically a layer of weathered or fragmented shale overlying more competent bedrock. In the Coastal Plain province, bedrock is overlain by alternating layers of unconsolidated sands, gravels, and clays, which regionally include the Raritan and Magothy Formations. The Raritan and Magothy deposits mapped in the vicinity of the Site are very thin to absent and are not easily differentiated from overlying fluvio-glacial deposits.

Based on the evaluation of site information generated prior to and after the OU2 remedy, the geology at the CIC Study Area consists of the following four stratigraphic units:

- **Fill** – Fill materials comprise the upper 2 to 12 feet of unconsolidated materials (designated as Unit I in previous remedial investigation [RI] reports). The fill is predominantly composed of medium to coarse sand with subordinate amounts of gravel, silt, and clay, and minor amounts of debris. This fill unit was altered by the OU2 remedial action which involved excavation of CIC Study Area soils to varying depths, in excess of 20 feet below grade in some areas, based on source removal requirements. Backfill of excavated areas consisted of two distinct materials. A New Jersey Department of Transportation (NJDOT) I-9 coarse sand material was used below the natural water table to allow for drainage. A common fill was used above the water table.
- **Fluvio-glacial** – Beneath the fill are 2 to 35 feet of gravels, silts, and clays that comprise the Pennsauken Formation (designated as Unit II in previous RI reports). Such deposits are fluvio-glacial in origin resulting in a heterogeneous and laterally discontinuous depositional nature. As with the fill unit, this fluvio-glacial deposit was altered in some areas of the CIC Study Area as a result of the OU2 remedy.
- **Weathered bedrock (saprolite)** – Underlying the fluvio-glacial deposits are 4 to 45 feet of red clays and silts with lesser amounts of sand and gravel (designated as Unit III in previous RI reports). This unit is present throughout the CIC Study Area and appears to function as a semi-confining hydrologic barrier to vertical groundwater flow. In general, this geologic unit is relatively thin; less than 15 feet at the CIC Site, and increases in thickness toward the east. This unit appears to be a weathering product of the underlying Brunswick Formation, but may have

been locally reworked by fluvio-glacial processes. The contact between this unit and the underlying bedrock is typically transitional based on the degree of bedrock weathering.

- **Bedrock** – The Brunswick Formation (red shale), which is the youngest formation of the Triassic-aged Newark Group, occurs from 15 to 65 feet below grade (designated as Unit IV in previous RI reports). The CIC Site itself appears to be located on a bedrock topographic high, with bedrock occurring at deeper depths (relative to grade) east and south of the CIC Study Area.

During the installation of temporary and permanent wells during the AGI, subsurface soil conditions were evaluated to assess the stratigraphic conditions noted during previous investigations and changes as a result of the OU2 soil remedial action. No significant changes from the stratigraphic units noted above were observed.

#### 2.2.4. Hydrogeology

Based on the evaluation of site hydrogeologic information generated prior to and after the OU2 remedy, the interpretation of the hydrogeology at the CIC Study Area consists of two separate groundwater flow regimes: an unconfined overburden zone comprised of the fill and fluvio-glacial deposits (Units I and II) and a partially confined, fractured bedrock water-bearing zone (Unit IV). The unconfined overburden zone and the fractured bedrock water-bearing zone are separated by a leaky weathered bedrock confining layer (Unit III). However, based on observations reported by others during previous drilling, the hydrostratigraphic units appear to cross stratigraphic boundaries. Based on data collected during the AGI, the CSM was updated to reflect that the overburden aquifer consists of the entire zone above competent bedrock as opposed to the shallow overburden and deep overburden identified during previous investigations.

The overburden material and weathered bedrock (or saprolite) within the CIC Study Area comprise a single hydrostratigraphic unit although the weathered bedrock could be considered a leaky confining zone and may locally comprise a hydrostratigraphic unit. The saprolite (Unit III) acts as semi-confining layer and for all practical purposes, is not considered an aquifer but rather an aquitard.

Monitoring wells associated with the LTM well network include the following:

- Overburden wells screened at the top of the unconfined overburden aquifer,
- Transition wells screened just above competent bedrock in the weathered bedrock or saprolite (clays and silts identified as Unit III), and
- Bedrock wells screened in the fractured bedrock water-bearing zone.

The OU2 remedy resulted in the alteration of the overburden geology within certain areas. The aquifer characteristics of the overburden geology (Units I and II) were altered by excavation and removal of fill and native soil and backfilling of the excavations with a more permeable material relative to the excavated soils. In some portions of the CIC Study Area, excavation extended to depth in excess of 20 feet below grade and extended to the saprolite (Unit III) semi-confining layer. Groundwater within the overburden aquifer has been encountered from 2 to 23 feet below grade throughout the CIC Study Area.

Based on the results presented in the AGI report, overall groundwater flow direction within the overburden aquifer does not appear to have been affected by the excavation and removal activities performed during the OU2 remedial action. Groundwater flow within the shallow bedrock (due in

part to more closely spaced fracture spacing) behaves similarly to that of the unconfined (phreatic) aquifer. Flow within the deeper bedrock is controlled by fracture hydraulics.

During the Phase IV RI, data collected by Foster Wheeler Environmental Corporation during a constant rate 48-hour bedrock pump test at a well located in the northeast corner of the CIC Site indicated an average transmissivity of 111 square feet/day ( $\text{ft}^2/\text{day}$ ) or 830 gallons/day/square foot ( $\text{gpd}/\text{ft}^2$ ). Using an estimated 100 feet for the aquifer thickness, an average hydraulic conductivity of 1.11 feet/day or  $4 \times 10^{-4}$  centimeters/second ( $\text{cm}/\text{sec}$ ) was estimated for the bedrock aquifer. Estimated storage coefficient values indicated semi-confined to confined bedrock aquifer conditions. Pump test results also indicated that there was little response in the overburden aquifer to pumping in the bedrock aquifer.

The hydraulic conductivity of the overburden materials decreases with depth ( $10^{-3}$   $\text{cm}/\text{sec}$  shallow vs.  $10^{-4}$   $\text{cm}/\text{sec}$  right above rock). Overall horizontal groundwater flow is generally to the southeast, with flow directly from the CIC Site itself having a localized northeast flow direction (toward Interstate 287). The horizontal gradient typically ranges from 0.02 to 0.04 feet/feet. Based on the data collected during the AGI, the overall hydraulic gradient within the overburden aquifer for the CIC Study Area does not appear to have been affected by the OU2 remedy.

Groundwater flow direction within the first 20 to 50 feet of bedrock appears to behave more like groundwater flow within the overburden aquifer. Overall, groundwater flow within the shallow bedrock wells mimics the flow direction within the overburden aquifer. Groundwater flow within the deeper bedrock aquifer is expected to behave more consistent with regional hydraulic flow, which is generally to the southeast. However, in the northern portion of the CIC Site, flow is influenced by lower topography and the stormwater sewer system associated with Interstate 287, creating localized flow to the north and northeast.

Throughout the CIC Study Area, there is a downward vertical hydraulic groundwater flow component from the overburden aquifer to the shallow bedrock aquifer. The downward vertical flow component is impeded due to the low permeability of the weathered bedrock (saprolite) layer. There is some indication that, locally, groundwater within the deeper bedrock aquifer may exhibit an upward flow component to the shallow bedrock aquifer. The degree of hydraulic communication between the shallow and deeper bedrock is expected to vary based on fracture spacing and orientation.

### **2.3. Site History and Summary of Previous Investigations/Remedial Actions**

CIC owned and operated the Site from 1954 to 1970. The Site was used for the formulating of, and possibly the manufacturing of, insecticides, fungicides, rodenticides, and herbicides. These formulating activities, combined with poor housekeeping, led to widespread chemical contamination at the Site, as well as migration of contaminants to offsite areas. At one time, the property consisted of approximately seven buildings used for the formulation/storage of pesticides and herbicides. Additionally, lagoons existed along the eastern property boundary that was reportedly used to hold some of the facility's wastewater.

In the mid-1960's, the Edison Department of Health and Human Resources became concerned about activity onsite due to numerous complaints from surrounding neighbors. In June 1966, the Edison Township Health Officer ordered the facility to stop discharging wastewater, oversaw disposal of leaking drums to eliminate an odor problem, and ordered the closing of the onsite lagoons.

In August 1970, CIC declared bankruptcy. Subsequently, Piscataway Associates purchased the property and demolished the production facilities by 1975.

In 1983, the former CIC facility was included in a USEPA/NJDEP dioxin-screening program that identified and sampled potential dioxin-contaminated sites. Sampling revealed low-level dioxin contamination in some of the former process areas, while results from neighboring properties did not show any evidence of dioxin contamination. While conducting the sampling at the Site, USEPA also collected additional samples for other commonly found pollutants. Data indicated widespread contamination onsite and limited contamination offsite.

Based on the results of these investigations, USEPA initiated an RI at the Site in July 1987. In August 1990, USEPA included the CIC Site on the National Priorities List (NPL). Concurrent with the remedial investigation / feasibility study (RI/FS), USEPA conducted several removal actions to mitigate risks associated with contaminated soil and surface water runoff from the Site.

In September 1989, USEPA issued a ROD for OU1, selecting an interim remedial action to control contaminated runoff from the CIC Site. The remedy consisted of installing a fence around the Site, clearing and grading, covering the Site with a high-density polyethylene surficial geo-cap liner to prevent infiltration of precipitation, and constructing a surface water runoff diversion system to collect uncontaminated surface water runoff from the cap and channel it to a drainage system. Construction of the interim remedy was completed in September 1994.

In March 1995, USEPA issued a ROD for OU3, selecting a remedy to address arsenic-contaminated soil and sediment in offsite creek areas. The remedy consisted of the excavation and offsite disposal of contaminated soil and sediment followed by restoration of offsite areas, stream beds, and wetlands. The OU3 remedy was completed in April 1997.

While proceeding with the OU1 and OU3 remedies, USEPA continued the RI/FS work for OU2 and OU4, collecting additional samples at the CIC Site and neighboring properties and evaluating alternatives for contaminated soil and groundwater. USEPA and NJDEP elected to proceed with the OU2 soil remedy independent of the groundwater remedy (OU4) since the interim cap was approaching the end of its projected life span and additional work remained to complete the groundwater RI/FS.

In September 2000, USEPA issued a ROD for OU2, selecting a remedy to address contaminated soil for the CIC and Muller properties and portions of the Metroplex and Morris Companies properties (collectively, the CIC Study Area). The remedy consisted of the excavation and offsite disposal of contaminated soil followed by restoration of the affected areas. The major objectives of the OU2 remedy were to reduce and eliminate the direct contact pathway for human exposure and the source of groundwater contamination. This action was also anticipated to have a reductive response to future groundwater contamination. The OU2 remedy was completed in May 2005.

Groundwater investigatory work was completed in 2002 and in December 2003, USEPA issued a ROD for OU4, selecting a remedy to address groundwater contamination associated with the CIC Study Area. The remedy consists of a long-term groundwater monitoring plan and the implementation of institutional controls.

A number of soil, sediment, surface water, groundwater, and air investigations have been conducted at the CIC Study Area, dating back to 1983. To summarize, these have included the following:

- 1983 investigation of the Site as part of a State-wide dioxin screening program;
- 1984 investigation by NJDEP in support of ranking the Site with the Hazard Ranking System;
- 1985 investigation by NUS Corporation as the USEPA Field Investigation Team;
- 1992 and 1993 investigations by USEPA at offsite locations;
- Four phases of RI/FS work beginning in 1987 and concluding in 1999;
- 1994 interim remedial action for OU1 (contaminated surface water runoff);
- 1997 remedial action for OU3 (contaminated offsite soil and sediment);
- 1998 post-cap sampling by USEPA;
- 2003 OU2 baseline groundwater sampling event by TAMS, under contract to USEPA;
- 2005 remedial action for OU2 (Site soils and source materials);
- 2005 OU2 post-remediation groundwater sampling event by USEPA;
- 2006 well inventory/usability survey by O'Brien & Gere;
- 2006 baseline monitoring event and 2007 well abandonment/rehabilitation by O'Brien & Gere;
- 2007 AGI/1<sup>st</sup> Quarter LTM Event by O'Brien & Gere;
- 2007 geologic evaluation of the CIC Site by the U.S. Geological Survey;
- 2007 2<sup>nd</sup> Quarter LTM Event and 2008 slug testing by O'Brien & Gere;
- 2008 3<sup>rd</sup> Quarter LTM Event by O'Brien & Gere;
- 2008 4<sup>th</sup> Quarter LTM Event by O'Brien & Gere;
- 2008 5<sup>th</sup> Quarter LTM Event by O'Brien & Gere;
- 2009 6<sup>th</sup> LTM Event by O'Brien & Gere;
- 2009 7<sup>th</sup> LTM Event by O'Brien & Gere;
- 2010 8<sup>th</sup> LTM Event by CTI;
- 2011 9<sup>th</sup> LTM Event by CTI;
- 2012 10<sup>th</sup> LTM Event by CTI;
- 2013 11<sup>th</sup> LTM Event by CTI;
- 2013 12<sup>th</sup> LTM Event by CTI; and
- 2014 13<sup>th</sup> LTM Event by CTI.

#### **2.4. Nature and Extent of Groundwater Contamination**

Groundwater at the CIC Study Area has been sampled over several time periods as noted above. The current understanding of the nature and extent of contamination is based on an evaluation of the 2003 and 2005 through 2014 groundwater monitoring events. Groundwater remediation goals (RGs) are established in the December 2003 ROD for OU4 as the most conservative value (i.e., the lowest) of the following sets of standards: (1) USEPA's Maximum Contaminant Levels (MCLs); (2) NJDEP's Safe Drinking Water Standards (or MCLs); and (3) NJDEP's Class IIA Groundwater Quality Standards (GWQS).

The overburden and bedrock groundwater is contaminated at the CIC Study Area. The principal sources appear to have been the overlying contaminated soil and/or contaminant residuals from the former septic pit, former process lagoons, and former buried drum areas. It is also possible that a portion of the groundwater contamination may have been attributable to wastewater discharged to the lagoons during CIC operations. The sporadic groundwater contamination in monitoring wells on neighboring properties to the east of the CIC Site primarily appears to originate from the historic routes of surface water drainage from the Site. These sources to groundwater contamination have been removed; with the latest being contaminated soils and source materials as of May 2005.

Sampling results over time have identified exceedances of metals (specifically arsenic), benzene hexachloride (BHC) pesticides, herbicides (specifically dinoseb), volatile organic compounds (VOCs) (benzene and chlorinated solvents) and semi-volatile organic compounds (SVOCs). There have been some notable decreases in concentrations from 2003/2005 to 2014, which is an indication that the OU2 soil remedial action is having a beneficial effect on groundwater concentrations. Trichloroethene (TCE) concentrations have decreased in the bedrock monitoring wells located in the northeastern corner of the CIC Site and concentrations of vinyl chloride, a breakdown product of chlorinated VOCs, have tended to increase over time. Concentrations of alpha-BHC in these monitoring wells also tend to fluctuate over time. Based on historical information on soil contamination, significant levels of dinoseb were identified in the southern portion of the CIC Site. Transition monitoring wells QD and FU (located in this area) has shown a relatively constant concentration of dinoseb over time. The concentration of arsenic in the bedrock monitoring wells has decreased dramatically since 2003.

Historically, the widest variety of contaminants has been detected in the deeper overburden and bedrock wells in the northeastern portion of the Site (where bedrock was encountered at a shallower depth than in other portions of the CIC Study Area). There was also contamination in the southern portion of the CIC Site within the deeper overburden and bedrock aquifers that appears to be specifically related to historic elevated concentrations of herbicides in this area. Sporadic contamination has also been identified to the east of the CIC Site (i.e., Metroplex Corporation and Total TEC portion of the CIC Study Area), which is indicative of historic surface water drainage patterns. It has been determined and concurred to by both USEPA and NJDEP that elevated levels of TCE east of the Metroplex Corporation building area (i.e., monitoring well BF-5) are from an unidentified local source, not CIC Site-related, and subsequently, this source is being addressed as a separate issue by the regulatory agencies.

### 3. Scope of Monitoring Event

This section describes the field investigation procedures, analytical methods, and quality assurance (QA)/quality control (QC) protocols as conducted during the Summer 2014 LTM Event at the CIC Study Area. Monitoring was conducted in accordance with the October 2009 *Final Long-Term Monitoring Plan* and applicable USEPA and NJDEP regulations and guidance. There were no noted deviations from these controlling documents during the sampling event.

The Summer 2014 LTM Event was conducted from September 28 through October 1, 2014. Groundwater samples were collected from the monitoring wells established as part of the LTM network which consists of the following 17 wells in the CIC Study Area:

- |          |          |          |
|----------|----------|----------|
| • BF-2   | • MW-2S  | • MW-6BR |
| • BF-2D  | • MW-3BR | • MW-7BR |
| • BF-4   | • MW-3S  | • NUS-2D |
| • FU     | • MW-4BR | • NUS-3S |
| • GU     | • MW-4S  | • QD     |
| • MW-2BR | • MW-5BR |          |

The current LTM well network is depicted on Figure 2-1.

#### 3.1. Groundwater Level Measurements

On September 29, 2014, CTI collected a synoptic round of water level measurements from all 26 groundwater monitoring wells. Water levels were measured using an electronic water level indicator with an accuracy of  $\pm 0.01$  feet from a consistent point at the top of the inner well casing. The stabilized water level and the calculated groundwater elevation based on the surveyed elevation of the inner well casing are presented on Table 3-1. The water level measurement information is presented in Appendix A.

#### 3.2. Monitoring Well Inspection

A well inventory and inspection of the monitoring wells was conducted to evaluate the present condition of each well in the LTM monitoring well network. The USEPA Region 2 Superfund Well Assessment Checklist was completed for each monitoring well. The well inspection identified several deficiencies with the wells, primarily associated with the flush-mount well covers. The well deficiencies, well maintenance performed during the sampling event by field personnel, and recommendations for follow-up maintenance is presented in Table 3-2. The USEPA Well Assessment Checklist Forms are presented in Appendix A.

During the Fall 2013 sample event, damage to the Muller Property fence gate was noted and USACE and USEPA were notified that the CIC Site was not secure due to the Muller gate damage. Upon arrival to the site for the Summer 2014 sample event, the fence gate had been repaired and CIC Site secured. The Muller Property is located adjacent to the CIC Site to the west.

### **3.3. Groundwater Sampling**

The monitoring wells were purged and sampled in accordance with USEPA Region II's *Ground Water Sampling Procedure – Low Stress (Low Flow) Purging and Sampling* dated March 1998 and as the primary guidance for low flow sampling, NJDEP's *Field Sampling Procedures Manual* (Section 6.9.2.2), dated August 2005. Groundwater sampling was conducted September 29 through October 1, 2014.

Initially, the static water level was measured in the monitoring well with an electronic water level indicator. A 1.75" QED Sample Pro™ submersible bladder pump and attached Teflon™-lined polyethylene tubing was carefully lowered to the designated sample depth interval within the well screen (approximate midpoint of screen interval) and secured. When starting the purge process, the groundwater was purged at a rate of approximately 100 milliliters/minute (mL/min) while monitoring drawdown and adjusted according to drawdown. Purge water was discharged to the ground surface.

Field parameters were monitored with a Horiba U-22 flow-through cell. Field parameter measurements of pH, specific conductivity, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity were recorded at approximate 5-minute intervals during purging. Purging continued until these field parameters stabilized. Upon stabilization of the field parameters, the flow-through cell was disconnected, the purge flow rate was maintained, and a groundwater sample was collected for laboratory analysis.

At monitoring well location MW-4S, insufficient water was present on the well to collect the samples by low flow sample methods. Only the VOC sample was collected for analysis using a disposable bailer. Due to the limited quantity of water present in the well, the laboratory sample for metals and pesticides were not collected and field parameter measurements were not recorded.

Due to the herbicide sample bottles collected from well FU on September 30, 2014, lacking sufficient sample volume, CTI returned to well FU on October 1, 2014, and re-collected the herbicide sample volume (designated FU Resample) following the low flow purge and sample protocol. An equipment rinsate sample was also collected from the bladder pump prior to use at well FU.

Table 3-3 presents field parameter measurements at the time of sample collection for each monitoring well. Groundwater sample logs are presented in Appendix B.

#### **3.3.1. Monitoring Well Performance**

During groundwater purging, numerous monitoring wells were found to recharge at a rate insufficient to support purge rates of approximately 100 to 200 ml/min and exhibited drawdown during well purging. When purging, the water level in the monitoring well casings dropped to a level greater than the 0.3 foot limit specified in the applicable guidance documents. In accordance with the USEPA Region II *Ground Water Sampling Procedure* for wells with insufficient yield, the groundwater purge rate and the water level were monitored to ensure dewatering of the well below the level of the pump intake did not occur and the water level was not lowered to a level below the top of the well screen. Purging continued until the field parameters became stabilized.

Low well yield has been documented during previous investigations. During the AGI, three wells with very low well yields (BF-4, MW-3S, and MW-2BR) were redeveloped suggesting the low well yield is a function of low aquifer hydraulic conductivity rather than well screen and filter pack performance. Following the Winter 2012/2013 sample event, monitoring wells MW-3S, MW-3BR, and FU were redeveloped due to high turbidity or the potential for sediment accumulation in the bottom of the well. Excessive drawdown was documented at these well locations during the Summer 2014 sample event, further supporting the concept that the low well yield is a function of low aquifer hydraulic conductivity rather than well screen and filter pack performance.

### **3.4. Analytical Methods**

Groundwater samples and associated QC samples were shipped via FedEx or hand delivered to the following laboratories for analysis of the following parameters:

- USEPA - Division of Environmental Science and Assessment (DESA) Laboratory, Edison, New Jersey, provided the Target Compound List (TCL) pesticides analysis, reporting for BHC compounds only, and the analysis of Target Analyte List (TAL) metals, reporting arsenic only.
- KAP Technologies, Inc. of The Woodlands, TX, provided analysis of TCL VOCs and the herbicides analysis from monitoring wells FU and QD, reporting for dinoseb only.

Table 3-4 presents a summary of sample preparation and analytical methods utilized during the Summer 2014 LTM Event. Chain-of-custody records and the CIC Sampling Trip Report for the samples submitted for laboratory analysis are included as Appendix C.

### **3.5. Quality Assurance/Quality Control**

The overall QA/QC objective was to develop and implement procedures for field sampling, chain-of-custody, laboratory analyses, and reporting so that data was collected in a uniform manner, and that data is of consistently high quality. To collect and record data in a uniform manner, the March 2011 *Final Quality Assurance Project Plan* was prepared which describe and specify QA/QC procedures for the LTM program.

#### **3.5.1. Equipment Decontamination**

To reduce the possibility of cross-contamination, sampling equipment that came in contact with groundwater was decontaminated before each sample was collected. Where possible, disposable items were utilized (i.e., tubing) to reduce the potential for cross-contamination. Equipment was decontaminated near the monitoring well location with the spent solution and rinse water discharged to the ground surface (away from the well location).

#### **3.5.2. Equipment Calibration**

The equipment used to monitor the water quality indicator parameters was properly calibrated with reference standards at the start of each day of sampling. Additionally, pH calibration was performed again at the end of the day. Equipment calibration information was recorded on calibration logs presented in Appendix D.

### **3.5.3. Field Quality Control**

Field QC samples collected during the Summer 2014 LTM Event included field duplicates, equipment (rinsate) blanks, trip blanks, and a matrix spike/matrix spike duplicate (MS/MSD). Analytical results for equipment blanks, trip blanks, and field duplicate samples (provided with the actual sample results as sample pairs) are presented in Section 4.0.

Two field duplicate samples were collected as a measure of the precision of the sample collection process and analytical reproducibility. Duplicates were collected at the same time, using the same procedures, the same equipment, and the same type of containers as the parent samples. Field duplicate samples were collected at NUS-3S and QD and the herbicide field duplicate sample was collected from monitoring well QD.

Equipment rinsate samples were collected and analyzed to examine the effectiveness of equipment decontamination procedures. Samples from the submersible pump and tubing were collected daily (four total) using high-grade deionized water. Equipment (rinsate) blanks were identified as “ER” and the sequence in which they were collected.

Trip blanks were prepared each day and accompanied each cooler with a VOC sample. The trip blanks served as an evaluation of contamination generated from sample containers or contamination occurring during the sample transport and laboratory storage processes. Three trip blanks were submitted (one per VOC sample shipment) and labeled “TB” and the sequence in which they were collected.

One MS/MSD sample was collected at a location not suspected of contamination but representative of different groundwater conditions to confirm the accuracy of the laboratory analysis. The MS/MSD sample was collected from well BF-4.

### **3.5.4. Sample Delivery and Custody**

FedEx was used as the method of shipment to KAP Technologies, Inc., and samples were hand delivered to the USEPA-DESA laboratory during this sampling event. All samples were packaged for shipment in accordance with Contract Laboratory Program procedures, Department of Transportation (DOT) requirements, and chain-of-custody procedures.

### **3.5.5. Field Documentation**

Chain-of-custody records, groundwater sampling logs, and equipment calibration logs were used as a means of recording the data collection activities performed each day onsite. Additionally, for each day of sampling, a daily quality control report (DQCR) was completed (see Appendix E).

### **3.5.6. Data Validation**

The purpose of validating data is to allow the data user to interpret and use the data with varying degrees of confidence, depending on how the data are qualified (i.e., unqualified, estimated, or rejected). Groundwater samples collected during the Summer 2014 LTM Event for analysis of metals (reporting for arsenic only) and TCL pesticides analysis were submitted to the USEPA-DESA laboratory in Edison, NJ. Groundwater samples collected for analysis of TCL herbicides analysis

(monitoring wells FU and QD, reporting for dinoseb only) and VOCs were submitted to KAP Technologies, Inc. of The Woodlands, TX. USEPA performed data validation for 100% of the VOC, arsenic, pesticide, and herbicide analytical data. Data validation results and laboratory data are provided in Appendix F.

#### **3.5.7. Electronic Data Deliverable**

The analytical data from this sample event has been submitted electronically to USEPA in the electronic data deliverable (EDD) required format as part of the submission of this report.

## **4. Monitoring Results**

The purpose of the Summer 2014 LTM Event was to collect groundwater samples from the LTM well network at the CIC Study Area to monitor contaminant concentrations, evaluate groundwater flow direction, and to continue monitoring the effectiveness of the May 2005 OU2 remedial action.

### **4.1. Condition of Monitoring Wells**

A synoptic round of water level measurements was collected prior to the sampling event. During these measurements, the condition of each monitoring well was noted and well repairs associated with securing the covers on the flush-mount protective casings was performed at several well locations at the completion of the sample event.

### **4.2. Summary of Hydrogeologic Results**

Based on the results of the synoptic round of water level measurements, groundwater elevations have begun to return to normal levels at many of the monitoring well locations across the CIC Study Area. During the Fall 2013 (December 3, 2013) sample event, a significant decrease in water elevation was noted in both the upper overburden aquifer and the bedrock aquifer in comparison to the Winter 2012/2013 (February 27, 2013) elevations, presumably due to dry weather conditions. Comparison of the Summer 2014 (September 29, 2014) and Fall 2013 groundwater elevations, presented in Table 4-1, indicates groundwater levels have increased in 17 of the 26 monitoring wells but at a rate that appears to be significantly lower than the initial decrease recorded in Fall of 2013. Potentiometric surface (groundwater contour) maps developed for the overburden and bedrock aquifers are presented on Figures 4-1 and 4-2, respectively.

Groundwater flow direction in the overburden and bedrock aquifers in the central and eastern portion of the CIC Study area is generally to the south and southeast. In the western portion of the CIC Study area, including the CIC site, groundwater flow direction in the overburden and bedrock aquifers is toward the northeast. Groundwater flow at the CIC site is influenced by lower topography and the excavation of bedrock for the construction of the highway and the associated stormwater sewer system, creating localized flow to the north and northeast. In general, the decrease in groundwater elevation in both the bedrock and overburden aquifers did not substantially alter the groundwater flow direction in either aquifer.

The bedrock aquifer is isolated from the overburden groundwater across the CIC Study Area by the weathered bedrock (saprolite) which acts as semi-confining layer and is not considered an aquifer but rather an aquitard. The vertical hydraulic gradient between the overburden and bedrock aquifers is predominantly downward, typically ranging from 0.003 to 0.24 ft/ft. The exception is at the NUS-3S/3D monitoring well nest where, during the Summer 2014 sample event, a slight upward vertical gradient (0.0009 ft/ft) is present. The reversal of the vertical hydraulic gradient at this location in comparison to previous LTM events is most likely short term and a result of the decrease in groundwater elevations in the area.

Within the bedrock aquifer, vertical hydraulic gradients between deep and shallow bedrock wells tend to be upward, ranging from 0.0038 ft/ft at BF-2/BF-2D to 0.012 ft/ft at MW-1BRD/MW-1BRS. The

vertical hydraulic gradient between the deep and intermediate bedrock wells BF-2D and MW-5BR, is slightly downward at 0.0011 ft/ft.

On the CIC Site, the horizontal groundwater flow gradient is approximately 0.018 feet/feet in the bedrock aquifer with groundwater flow toward the north and northeast. Based on hydraulic conductivity ranging from  $2.8 \times 10^{-5}$  cm/sec at BF-2D to  $1.36 \times 10^{-3}$  cm/sec at MW-5BR measured during the AGI and an assumed porosity of 10 percent, the groundwater seepage velocity is approximately ranges from 0.015 to 0.73 feet per day or 5.4 to 248 feet per year. In the CIC Study Area, the horizontal gradient is approximately 0.006 feet/feet in the overburden and bedrock aquifers with groundwater flow toward the east and southeast.

### **4.3. Remediation Goals**

Screening criteria (remediation goals (RGs)) were used to assist in the interpretation of the analytical results. This included the most conservative value (i.e., the lowest) of USEPA's MCLs, NJDEP's MCLs, and NJDEP's GWQS. Analytical results for groundwater monitoring wells are presented in Table 4-2 for VOCs, pesticides, herbicides, and metals. Analytical results for equipment rinsate blanks and VOC trip blanks are presented in Table 4-3.

Contaminants of concern (COCs) have been selected for this project based on an evaluation of the various data sets (2003 to 2009). The primary COCs consist of one predominant contaminant compound per analyte group based on historic uses at the CIC Site, detections across the CIC Study Area, and the frequency of concentrations exceeding the established remediation goals. The primary COCs are as follows:

- VOCs – TCE;
- Pesticides – alpha-BHC;
- Herbicides – dinoseb; and
- Metals – arsenic.

Figures 4-3 and 4-4 depict contaminant concentration for the primary COCs and vinyl chloride from 2003 through 2014 for the overburden/transition wells and bedrock wells, respectively.

### **4.4. Summary of Analytical Results**

The laboratory analytical packages are provided in Appendix F.

#### **4.4.1. Volatile Organic Compounds**

Groundwater analytical results for VOCs are presented on Table 4-2. Because the remediation goals for this project are low, a lower method detection limit (0.50 µg/L) was requested for VOC analysis.

The following constituents were detected at or above the remediation goals:

Trichloroethene (TCE) [goal of 1 µg/L]

- MW-7BR at 2.3 µg/L; and

- QD at 1.5 µg/L.

Tetrachloroethane (PCE) [goal of 1 µg/L]

- MW-7BR at 1.6 µg/L.

1,2-Dichloroethane (1,2-DCA) [goal of 2 µg/L]

- MW-5BR at 4.4 µg/L;
- MW-6BR at 3.1 µg/L;
- BF-2 at 6.7 µg/L; and
- QD at 2.6 µg/L.

Vinyl Chloride [goal of 1 µg/L]

- BF-2 at 6.7 µg/L;
- BF-2D at 76 µg/L; and
- MW-5BR at 44 µg/L.

Benzene [goal of 1 µg/L]

- BF-2 at 3.6 µg/L;
- BF-2D at 9.7 µg/L; and
- MW-5BR at 16 µg/L.

Monitoring well nest location BF-2, BF-2D, and MW-5BR continue to exhibit the broadest range of VOCs above the established remediation goals in the CIC Study Area. VOCs were also detected above the remediation goals at monitoring well locations MW-7BR and QD.

#### **4.4.2. Pesticides**

Groundwater analytical results for BHC compounds are presented on Table 4-2. The following BHC constituents were detected above the remediation goals:

alpha-BHC [goal of 0.02 µg/L]

- MW-5BR at 0.43 µg/L;
- BF-2 at 1.1 µg/L;
- BF-2D at 0.56 µg/L;
- FU at 0.026 µg/L; and
- QD at 0.025 µg/L

beta-BHC [goal of 0.04 µg/L]

- BF-2 at 0.48 µg/L; and
- BF-2D at 0.24 µg/L.

#### **4.4.3. Herbicides**

Groundwater analytical results for dinoseb at monitoring wells FU and QD are presented on Table 4-2. Dinoseb was not detected above the remediation goal of 7.0 µg/L in either well. Due to high dinoseb concentrations in the past (prior to the OU2 remedial action), this constituent was selected as the primary herbicide COC.

#### **4.4.4. Metals**

Groundwater analytical results for arsenic are presented on Table 4-2. A description of the analytical testing is presented in Section 3.4. Exceedances of the 3 µg/L remediation goal were as follows:

- MW-5BR at 170 µg/L;
- BF-2 at 300 µg/L; and
- BF-2D at 4.0 µg/L.

## 5. Conclusions and Recommendations

### Conclusions

The groundwater flow regime at the CIC Study Area is comprised of an overburden and weathered bedrock groundwater flow system and the bedrock groundwater flow system. Groundwater in the overburden and bedrock aquifers is contaminated at the CIC Study Area with the principal sources being contaminated soil and source materials removed as part of the OU2 remedy and historic surface water drainage patterns from the CIC Site. Based on the data collected from 2003 to date, primary COCs include metals (specifically arsenic), BHC pesticides (specifically alpha-BHC), herbicides (specifically dinoseb), and VOCs. Figures 4-3 and 4-4 depict contaminant concentration for the primary COCs and vinyl chloride from 2003 through the Summer 2014 sample events for the overburden/transition wells and bedrock wells, respectively.

In the overburden aquifer, groundwater concentrations exceeded the established groundwater remediation goals at monitoring well locations QD for trichloroethene, 1,2-dichloroethane and alpha-BHC and FU for alpha-BHC. No other analytes exceeded the established groundwater remediation goals in the overburden aquifer. Monitoring wells QD is located in the central portion of the CIC Study Area. TCE and pesticide concentrations in monitoring well QD tend to fluctuate over time and intermittently exceed the established remediation goals. Pesticide concentrations in monitoring well FU also tend to fluctuate over time near the established remediation goal.

In the bedrock aquifer, groundwater concentrations exceeded the established groundwater remediation goals at five monitoring well locations for the following constituents.

#### Monitoring Well BF-2

- 6.7 µg/L for 1,2-DCA (RG of 2 µg/L)
- 6.7 µg/L for Vinyl Chloride (RG of 1 µg/L)
- 3.6 µg/L for Benzene (RG of 1 µg/L)
- 1.1 µg/L for alpha-BHC (RG of 0.02 µg/L)
- 0.48 µg/L for beta-BHC (RG of 0.04 µg/L)
- 300 µg/L for Arsenic (RG of 3 µg/L)

#### Monitoring Well BF-2D

- 76 µg/L for Vinyl Chloride (RG of 1 µg/L)
- 9.7 µg/L for Benzene (RG of 1 µg/L)
- 0.56 µg/L for alpha-BHC (RG of 0.02 µg/L)
- 0.24 µg/L for beta-BHC (RG of 0.04 µg/L)
- 4.0 µg/L for Arsenic (RG of 3 µg/L)

#### Monitoring Well MW-5BR

- 4.4 µg/L for 1,2-DCA (RG of 2 µg/L)
- 44 µg/L for Vinyl Chloride (RG of 1 µg/L)
- 16 µg/L for Benzene (RG of 1 µg/L)
- 0.43 µg/L for alpha-BHC (RG of 0.02 µg/L)
- 170 µg/L for Arsenic (RG of 3 µg/L)

Monitoring Well MW-6BR

- 3.1 µg/L for 1,2-DCA (RG of 2 µg/L)

Monitoring Well MW-7BR

- 2.3 µg/L for TCE (RG of 1 µg/L)
- 1.6 µg/L for PCE (RG of 1 µg/L)

No other compounds exceeded the established groundwater remediation goals in the bedrock aquifer.

Monitoring well nest location BF-2, BF-2D, and MW-5BR provides a vertical profile of contaminant concentrations in the northeastern corner of the CIC Site and exhibits the broadest range of contaminants (VOCs, pesticides, and arsenic) above the established remediation goals in the CIC study area. Figure 4-4 depicts contaminant concentration for the primary COCs and vinyl chloride from 2003 through 2014 for the bedrock monitoring wells.

The arsenic concentration trend at shallow bedrock aquifer monitoring well BF-2 continue to decrease consistently from 2003 to 2014 (12,700 µg/L in 2003, 370 µg/L in 2012, 330 µg/L in 2013 to 300 µg/L in 2014, though at a more gradual rate of decrease in the recent past. A similar trend is also apparent at monitoring well MW-5BR where arsenic concentrations decreased consistently from 2003 to 2011 and appears to presently fluctuate between 170 and 130 ug/L over the last four LTM sample events. The historical arsenic concentration trends indicate that the OU2 soil remedial action has had a beneficial effect on the shallow and intermediate bedrock groundwater arsenic concentrations in the years immediately following the source area remediation. The recent slow rate of decline and fluctuating arsenic concentration trends in the shallow and intermediate bedrock aquifer may indicate the bedrock aquifer is approaching asymptotic arsenic concentrations and steady state conditions with potential residual arsenic contamination.

Arsenic concentrations appear to fluctuate over time in the deeper sections of the bedrock aquifer. At deep bedrock monitoring well location BF-2D, arsenic decreased from 25.9 µg/L in 2003 to non-detect during 6<sup>th</sup> LTM Event in 2009. Arsenic concentrations steadily increased in subsequent events to 16 µg/L in 2010 and have since decreased to 4.0 µg/L during the Summer 2014 LTM Event. The fluctuations in arsenic concentration may reflect fluctuations in groundwater elevation and/or changes in the vertical hydraulic groundwater flow gradient within the bedrock aquifer that results in the downward migration of groundwater with elevated arsenic concentration from the shallow bedrock aquifer.

Since 2009, TCE concentrations have been below the remediation goal of 1.0 µg/L or nondetect in monitoring well BF-2 and BF-2D. Historically, TCE has not been detected in monitoring well MW-5BR. Vinyl chloride concentrations have tended to fluctuate in these wells following the 2005 OU2 soil remediation with vinyl chloride concentrations increasing with depth in the aquifer. The range of vinyl chloride concentrations include 5.0 µg/L to 29 µg/L at BF-2, from 44 µg/L to 96 µg/L at MW-5BR, and from 24 µg/L to 130 µg/L at BF-2D presumably as a result of the breakdown of chlorinated VOCs into their associated daughter products. In the northeast corner of the site at bedrock monitoring wells BF-2, BF-2D, and MW-5BR, groundwater flow is toward the interstate highway and likely discharges to the I-287 highway stormwater collection system. Vinyl chloride likely would rapidly volatilize at the point of discharge and does not appear to complete a human exposure pathway. Vinyl chloride was only detected at monitoring wells BF-2, BF-2D, and MW-5BR during the Summer 2014 LTM Event.

From 2012 to 2014, alpha-BHC concentrations decreased from 3.5 µg/L to 0.56 µg/L at BF-2D, from 3.2 µg/L to 1.1 µg/L at BF-2, and from 1.5 µg/L to 0.43 µg/L at MW-5BR. Beta-BHC concentrations decreased from 0.68J µg/L to 0.24 µg/L at BF-2D, from 0.96J µg/L to 0.48 µg/L at BF-2, and from 0.6J µg/L to nondetect at MW-5BR. Historical analytical laboratory results for Dinoseb in monitoring well BF-2 indicates concentration had decreased from 24 µg/L in 2003 to non-detect in 2008.

Anticipated upcoming activities for the CIC Study Area include the following sampling events:

- Spring 2015 LTM Event.

An LTM Report will be prepared after each sampling event.

### **Recommendations**

A re-evaluation each year (after each LTM event) is required to assess whether changes to the LTM program are required. Currently, there are no recommended changes to the sampling program, nor is there any indication that any existing monitoring wells should be abandoned.

The following recommendations will improve the CIC field data collection methods and ensure the integrity of the groundwater monitoring well network:

- Direct measure total well depth using a heavy line weight and fiberglass survey tape to accurately measure well depth and evaluate the accumulation of sediment at the bottom of the well.
- Perform additional monitoring well maintenance and/or monitoring well redevelopment to protect well integrity and improve monitoring well performance.
- Continue to monitor the performance of NUS-3S due to the identification of a crack in the well screen. Based on the upgradient groundwater flow location and non-detect status, NUS-3S can remain “as is” in the monitoring network until the growth of roots or the collection of sediment cause sufficient blockage to render the well unusable.

## 6. References

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HDR/O'Brien & Gere, 2009. *Final Long-Term Monitoring Plan, Chemical Insecticide Corporation Superfund Site, Operable Unit 4, Edison Township, Middlesex County, New Jersey.*

USEPA 2014. *Five-Year Review Report for Chemical Insecticide Corporation Superfund Site, Middlesex County, New Jersey*

USEPA Region II's *Ground Water Sampling Procedure – Low Stress (Low Flow) Purging and Sampling* dated March 1998.

NJDEP's *Field Sampling Procedures Manual (Section 6.9.2.2) dated August 2005.*

**Table 3-1**  
**Groundwater Level Measurements**  
**Summer 2014 Sample Event**  
**Chemical Insecticide Corporation**  
**Edison Township, Middlesex County, New Jersey**  
**Operable Unit 4 (OU4) - Groundwater**

Well ID	Aquifer	Depth to Water September 29, 2014	Groundwater Elevation September 29, 2014	Total Depth	Top of Inner Casing Elevation	Ground Surface Elevation	Total Depth Installed (feet bgs)	Difference Between TOC/Ground Surface	Total Depth Installed (feet TOC)	Screen Interval (feet bgs)		Northing Coordinate	Easting Coordinate
										Top	Bottom		
BF-2	Bedrock	10.74	94.58	34.03	105.32	104.52	34.5	0.80	35.30	24.5	34.5	617318.0	529088.8
BF-2D	Bedrock	14.69	94.79	91.38	109.48	108.18	90	1.30	91.30	80	90	617366.4	529046.4
BF-4	Bedrock	1.10	92.92	85.10	94.02	93.67	85.4	0.35	85.75	75.4	85.4	617180.5	529619.1
BF-5	Bedrock	10.12	85.19	35.10	95.31	94.95	35.35	0.36	35.71	25.35	35.35	616806.0	530061.2
FU	Overburden	5.05	90.56	13.65	95.61	95.06	15	0.55	15.55	5	15	616815.4	529626.8
GU	Overburden	5.61	89.64	35.45	95.25	94.70	36	0.55	36.55	26	36	617084.7	529627.5
MW-1BRD	Bedrock	17.38	93.76	99.50	111.14	110.69	100	0.45	100.45	90	100	617758.6	528988.7
MW-1BRS	Bedrock	18.27	93.12	44.90	111.39	111.09	45	0.30	45.30	35	45	617750.9	528979.4
MW-1S	Transition	15.93	95.46	16.95	111.39	110.77	17	0.62	17.62	7	17	617736.1	528959.6
MW-2BR	Bedrock	6.52	97.96	90.50	104.48	104.16	90	0.32	90.32	80	90	617522.1	529713.2
MW-2I	Transition	6.93	97.81	34.67	104.74	104.49	35	0.25	35.25	25	35	617510.3	529700.4
MW-2S	Overburden	6.55	98.21	13.34	104.76	104.46	14	0.30	14.30	4	14	617515.4	529705.0
MW-3BR	Bedrock	6.67	81.18	40.20	87.85	86.40	38	1.45	39.45	28	38	616365.4	531000.7
MW-3S	Transition	8.79	79.61	15.60	88.40	85.50	14	2.90	16.90	4	14	616342.9	531004.3
MW-4BR	Bedrock	24.11	93.17	61.23	117.28	115.93	58	1.35	59.35	48	58	617588.6	528348.2
MW-4S	Overburden	15.34	102.95	18.70	118.29	115.69	17	2.60	19.60	7	17	617603.2	528341.8
MW-5BR	Bedrock	9.85	94.82	63.53	104.67	104.22	63	0.45	63.45	53	63	617340.0	529113.9
MW-6BR	Bedrock	14.09	94.60	78.55	108.69	108.14	79	0.55	79.55	63	79	617054.4	529064.2
MW-7BR	Bedrock	5.45	90.35	44.20	95.80	95.35	44	0.45	44.45	34	44	616812.9	529631.5
MW-8BR	Bedrock	15.65	89.64	63.24	105.29	104.84	63	0.45	63.45	53	63	616453.3	530010.9
NUS-2D	Bedrock	18.41	98.03	111.45	116.44	115.92	105	0.52	105.52	89	105	616745.8	528866.2
NUS-3D	Bedrock	10.80	109.22	40.30	120.02	119.40	43	0.62	43.62	25	43	616683.5	528591.5
NUS-3S	Overburden	11.44	109.20	16.60	120.64	120.29	14	0.35	14.35	4	14	616681.0	528598.9
OU	Overburden	6.61	88.09	8.10	94.70	94.40	8.5	0.30	8.80	3.5	8.5	616797.4	530059.1
QD	Transition	19.92	91.01	47.70	110.93	110.68	48	0.25	48.25	38	48	616751.9	529370.6
UU	Overburden	12.13	83.60	19.02	95.73	93.93	18	1.80	19.80	8	18	616309.5	530363.2

Notes:

bgs = below ground surface

Depth to water measured from top of inner casing (TOC) and are provided in feet.

Elevations are in NAVD1988 Datum.

Survey information is from work conducted by Kupper Associates as part of the additional groundwater investigation/1st Qtr LTM activities.

Overburden = Geologic Unit I (fill material) and II (fluvio-glacial deposits) from previous remedial investigation activities.

Transition = Geologic Unit III (slightly weathered zone/clay and silt) from previous remedial investigation activities.

Bedrock = Geologic Unit IV (consolidated Brunswick shale) from previous remedial investigation activities.

"Total Depth Installed" and "Screen Interval" data are based on available information including boring logs, well construction logs, and NJDEP well records. Subsequently, measurements may not be completely accurate since the work was conducted by other contractors.

**Table 3-2**  
**Monitoring Well Inspection**  
**Summer 2014 Sample Event**  
**Chemical Insecticide Corporation**  
**Edison Township, Middlesex County, New Jersey**  
**Operable Unit 4 (OU4) - Groundwater**

<b>Well Number</b>	<b>Well Deficiency</b>	<b>Well Maintenance Performed</b>	<b>Recommendations</b>
MW-7 BR	Broken tab on flushmount cover, only two of the three bolt holes can accept a bolt. The flush mount pad is in a low paved area, water ponds over the well.	Installed larger diameter self tapping bolts to temporarily secure the flush mount lid.	Well cannot be secured due to broken cover tab, bolt holes are stripped and need to be retapped. The protective casing and concrete pad should be replaced as described for well FU.
OU	Well casing J-plug in smaller than required to adequately seal well casing.	None	Order correct size well plug ( 4.5") and replace during next sample event.
NUS-3S	Roots present in the well screen interval.	In July, 2011, downhole camera identified break in the well screen at 9.4' below TOC.	Well screen is compromised and may be replaced if necessary.
FU	The flush mount pad is in a low area of the parking lot. Water pools over the well, filling the handhole with water.	Installed larger diameter self tapping bolts to temporarily secure the flush mount lid.	The protective flush mount and concrete pad should be replaced higher than the surrounding pavement to prevent ponding over the well.

**Table 3-3**  
**Field Parameter Measurements**  
**Summer 2014 Sample Event**  
**Chemical Insecticide Corporation**  
**Edison Township, Middlesex County, New Jersey**  
**Operable Unit 4 (OU4) - Groundwater**

Well Number	Well Diameter (inches)	Date	Sample Time (24-hour)	Amount Purged (Liters)	Purge Flow Rate (mL/min)	pH	Temperature (°C)	Conductivity (µmhos/cm)	Turbidity (NTU)	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Water Level (feet below TOC)	Comments
BF-2	5 3/8	9/30/2014	1535	4.5	150	6.24	16.38	392	0.0	-55	0.74	10.81	
BF-2D	2	9/30/2014	1435	9.5	210	6.58	15.32	427	50.7	-39	2.25	14.84	Pink colored water
BF-4	4	9/29/2014	1355	9.8	180	7.77	19.21	414	0.0	-77	7.24	4.03	Drawdown > 0.3 feet
FU	5 3/8	10/1/2014	1635	11.3	125	6.38	18.23	572	0.0	174	1.11	6.28	Drawdown > 0.3 feet
GU	4	9/29/2014	1245	8.0	240	6.69	19.24	556	2.7	-9	0.97	6.70	Drawdown > 0.3 feet
MW-2BR	2	9/29/2014	1540	3.5	110	8.92	16.69	370	27.1	16	1.07	7.95	Drawdown > 0.3 feet
MW-2S	2	9/29/2014	1330	6.0	100	6.33	11.49	522	3.1	0	0.94	8.65	Drawdown > 0.3 feet
MW-3BR	2	10/1/2014	1225	5.0	100	7.08	16.61	260	19.2	-77	1.04	7.19	Drawdown > 0.3 feet
MW-3S	2	10/1/2014	1350	5.5	100	4.17	19.06	1300	20.5	333	0.92	10.51	Drawdown > 0.3 feet
MW-4BR	2	9/29/2014	1110	7.0	100	6.29	17.31	450	26.6	-47	1.05	24.19	
MW-4S	2	9/30/2014	0804	*	*	*	*	*	*	*	*	15.34	sampled with bailer
MW-5BR	2	10/1/2014	0935	6.0	150	6.60	15.29	570	27.5	-75	1.03	10.04	
MW-6BR	2	9/30/2014	1245	10.0	210	7.61	17.85	274	32.6	-71	5.47	24.37	Drawdown > 0.3 feet
MW-7BR	2	9/30/2014	1415	7.5	100	6.17	18.74	436	0.0	166	0.89	6.12	Drawdown > 0.3 feet
NUS-2D	6	9/28/2014	1631	3.0	110	7.06	16.12	244	0.0	-67	1.56	18.89	Drawdown > 0.3 feet
NUS-3S	6 1/2	9/28/2014	1410	13.0	170	4.85	18.65	116	5.7	320	3.91	11.44	
QD	4	9/30/2014	1010	10.0	220	6.86	15.65	286	1.7	122	0.41	20.01	

Notes:

mL/min	= milliliters per minute	(µmhos/cm) = micromhos per centimeter	°C = degrees Celsius
PID	= photoionization detector	NTU = nephelometric turbidity units	mV = millivolts
ppm	= parts per million	NM = not measured	mg/L = milligrams per liter
TOC	= top of casing	* = not measured, insufficient water in the well to perform low flow sampling, a grab sample was collected.	

**Table 3-4**  
**Sample Preparation and Analytical Methods**  
**Summer 2014 Sample Event**  
**Chemical Insecticide Corporation**  
**Edison Township, Middlesex County, New Jersey**  
**Operable Unit 4 (OU4) - Groundwater**

Matrix	Analytical Group	Concentration Level	Analytical Method	Sample Volume and Container	Preservation Requirements	Maximum Holding Time
Groundwater	TCL VOCs	Trace	USEPA SOP DW-1 (GC/MS Method)	3-40mL VOA vials with Teflon-lined septum caps	4 degrees C, HCL to pH<2	14 days from collection for analysis
Groundwater	TCL Pesticides	Trace	USEPA SOP C-91 (GC/ECD Method)	2-500 ml amber glass container with Teflon-lined screw cap	4 degrees C	7 days from collection to extraction; 40 days from extraction to analysis
Groundwater	Herbicides	Trace	USEPA Method 3510C8151A	2-1 L amber glass container with Teflon-lined screw cap	4 degrees C	7 days from collection to extraction; 40 days from extraction to analysis
Groundwater	TAL Metals	Low	USEPA SOP C-109 (ICP-AES Method)	1-500 mL polyethylene container	4 degrees C, HNO3 to pH<2	180 days from collection for analysis

Notes:

HCL = hydrochloric acid

HNO3 = nitric acid

L = liter

mL = millileter

TAL = Target Analyte List

TCL = Target Compound List

SOP = Standard Operating Procedure

USEPA = U.S. Environmental Protection Agency

VOCs = volatile organic compounds

**Table 4-1**  
**Groundwater Elevation Analysis**  
**Summer 2014 Sample Event**  
**Chemical Insecticide Corporation**  
**Edison Township, Middlesex County, New Jersey**  
**Operable Unit 4 (OU4) - Groundwater**

Well ID	Aquifer	Water Depth 12/3/2013	Water Elevation 12/3/2013	Water Depth 9/29/2014	Water Elevation 9/29/2014	Water Elevation Change	Water Column (feet)	Top of Inner Casing Elevation	Ground Surface Elevation	Screen Interval (feet bgs)		Total Depth
										Top	Bottom	
BF-2	Bedrock	11.10	94.22	10.74	94.58	0.36	23.29	105.32	104.52	24.5	34.5	34.03
BF-2D	Bedrock	15.04	94.44	14.69	94.79	0.35	76.69	109.48	108.18	80	90	91.38
BF-4	Bedrock	1.40	92.62	1.10	92.92	0.30	84.00	94.02	93.67	75.4	85.4	85.10
BF-5	Bedrock	9.94	85.37	10.12	85.19	-0.18	24.98	95.31	94.95	25.35	35.35	35.10
FU	Overburden	5.49	90.12	5.05	90.56	0.44	8.60	95.61	95.06	5	15	13.65
GU	Overburden	6.46	88.79	5.61	89.64	0.85	29.84	95.25	94.70	26	36	35.45
MW-1BRD	Bedrock	17.18	93.96	17.38	93.76	-0.20	82.12	111.14	110.69	90	100	99.50
MW-1BRS	Bedrock	18.46	92.93	18.27	93.12	0.19	26.63	111.39	111.09	35	45	44.90
MW-1S	Transition	13.84	97.55	15.93	95.46	-2.09	1.02	111.39	110.77	7	17	16.95
MW-2BR	Bedrock	6.73	97.75	6.52	97.96	0.21	83.98	104.48	104.16	80	90	90.50
MW-2I	Transition	6.77	97.97	6.93	97.81	-0.16	27.74	104.74	104.49	25	35	34.67
MW-2S	Overburden	6.22	98.54	6.55	98.21	-0.33	6.79	104.76	104.46	4	14	13.34
MW-3BR	Bedrock	7.23	80.62	6.67	81.18	0.56	33.53	87.85	86.40	28	38	40.20
MW-3S	Transition	8.99	79.41	8.79	79.61	0.20	6.81	88.40	85.50	4	14	15.60
MW-4BR	Bedrock	24.21	93.07	24.11	93.17	0.10	37.12	117.28	115.93	48	58	61.23
MW-4S	Overburden	16.57	101.72	15.34	102.95	1.23	3.36	118.29	115.69	7	17	18.70
MW-5BR	Bedrock	10.20	94.47	9.85	94.82	0.35	53.68	104.67	104.22	53	63	63.53
MW-6BR	Bedrock	14.74	93.95	14.09	94.60	0.65	64.46	108.69	108.14	63	79	78.55
MW-7BR	Bedrock	5.71	90.09	5.45	90.35	0.26	38.75	95.80	95.35	34	44	44.20
MW-8BR	Bedrock	16.04	89.25	16.65	88.64	-0.61	46.59	105.29	104.84	53	63	63.24
NUS-2D	Bedrock	18.91	97.53	18.41	98.03	0.50	93.04	116.44	115.92	89	105	111.45
NUS-3D	Bedrock	10.22	109.80	10.80	109.22	-0.58	29.50	120.02	119.40	25	43	40.30
NUS-3S	Overburden	10.88	109.76	11.44	109.20	-0.56	5.16	120.64	120.29	4	14	16.60
OU	Overburden	6.67	88.03	6.61	88.09	0.06	1.49	94.70	94.40	3.5	8.5	8.10
QD	Transition	20.40	90.53	19.92	91.01	0.48	27.78	110.93	110.68	38	48	47.70
UU	Overburden	12.10	83.63	12.13	83.60	-0.03	6.89	95.73	93.93	8	18	19.02

Notes:

bgs = below ground surface

Depth to water measured from top of inner casing (TOC) and are provided in feet.

Elevations are in NAVD1988 Datum.

Survey information is from work conducted by Kupper Associates as part of the additional groundwater investigation/1st Qtr LTM activities.

Overburden = Geologic Unit I (fill material) and II (fluvio-glacial deposits) from previous remedial investigation activities.

Transition = Geologic Unit III (slightly weathered zone/clay and silt) from previous remedial investigation activities.

Bedrock = Geologic Unit IV (consolidated Brunswick shale) from previous remedial investigation activities.

"Total Depth Installed" and "Screen Interval" data are based on available information including boring logs, well construction logs, and NJDEP well records.

Subsequently, measurements may not be completely accurate since the work was conducted by other contractors.

**Table 4-2**  
**Groundwater Laboratory Analytical Results - Summer 2014 Sample Event**  
**Chemical Insecticide Corporation - Edison Township, Middlesex County, New Jersey**  
**Operable Unit 4 (OU4) - Groundwater**

Well Location Sample Date Well Placement	Remediation Goal	MW-2S 09/29/2014 Overburden	MW-2BR 09/29/2014 Bedrock	MW-3S 10/01/2014 Transition	MW-3BR 09/30/2014 Bedrock	MW-4S 09/30/2014 Overburden	MW-4BR 09/29/2014 Bedrock	MW-5BR 10/01/2014 Bedrock	MW-6BR 09/30/2014 Bedrock	MW-7BR 09/30/2014 Bedrock	BF-2 09/30/2014 Bedrock	BF-2D 09/30/2014 Bedrock	BF-4 09/29/2014 Bedrock	NUS-2D 09/28/2014 Bedrock	NUS-3S 09/28/2014 Overburden	FU 09/30/2014 Overburden	GU 09/29/2014 Overburden	QD 09/30/2014 Transition
Volatile Organic Compounds	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	6000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	<b>16</b>	0.50 U	0.50 U	<b>3.6</b>	<b>9.7</b>	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromochloromethane	100*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	4.0	0.50 UJ	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.5 U	0.50 UJ	0.50 UJ
Bromomethane	10*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U
2-Butanone	300*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	700	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	14	0.52	0.50 U	14	14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.46 J
Chloroethane	100*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	70	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloromethane	100*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	100*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibromochloromethane	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-chloropropane	0.02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	0.03*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	600	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.25 J	0.50 U	0.50 U	0.25 J	0.24 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	75	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2 U	0.50 U	0.50 U	1.2	1.3	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.54
1,2-Dichlorobenzene	600	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.93	0.50 U	0.50 U	1.6	1.3	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.6
cis-1,2-Dichloroethene	70	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.5	2.1	0.50 U	30	6.5	0.50 U	0.50 U	0.50 U	0.50 U	0.53	0.16 J
1,1-Dichloroethane	50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	2.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	<b>4.4</b>	<b>3.1</b>	0.50 U	<b>6.7</b>	1.7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	<b>2.6</b>
Dichlorodifluoromethane	1000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.27 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.22 J
cis-1,3-Dichloropropene	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	100	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.5	0.16 J	0.50 U	6.3	9.2	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	1.0	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Ethylbenzene	700	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	100*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	700*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.9	0.50 U	0.50 U	0.54	1.1	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methyl acetate	7000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	100*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene chloride	3.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-pentanone	100*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	70	0.50 U	0.50 U	0.50 U	0.50 U	0.17 J	0.83	36	0.54	1.2	7.2	25	0.31 J	0.50 U	0.50 U	6.1	0.50 U	0.50 U
Styrene	100	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	<b>1.6</b>	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	600	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.30 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	9.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.16 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	100*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	<b>2.3</b>	0.22 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	<b>1.5</b>
1,1,1-Trichloroethane	30	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	3.0	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	2000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloro-1,2,2-trifluoroethane	100*	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	1000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
m,p-Xylene	1000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.19 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	<b>44</b>	0.50 U	0.50 U	<b>6.7</b>	<b>76</b>	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
<b>Metals</b>																		
Arsenic	3.0	1.0 U	2.6	1.0 U	1.6	NS	3.0	<b>170</b>	1.7	1.0 U	<b>300</b>	<b>4.0</b>	1.0 U	2.4	1.0 U	1.0 U	1.3	1.0 U
<b>Pesticides</b>																		
alpha-BHC	0.02	0.0047 U	0.0049 U	0.0045 U	0.0045 U	NS	0.0047 U	<b>0.43</b>	0.0050	0.0045 U	<b>1.1</b>	<b>0.56</b>	0.0054 U	0.0050 U	0.0049 U	<b>0.026</b>	0.0051 U	<b>0.025</b>
beta-BHC	0.04	0.0047 U	0.0049 U	0.0045 U	0.0045 U	NS	0.0047 U	0.0046 U	0.0051	0.0045 U	<b>0.48</b>	<b>0.24</b>	0.0054 U	0.0050 U	0.0049 U	0.0045 U	0.0051 U	0.0046 U
delta-BHC	100	0.0047 UJ	0.0049 UJ	0.0063 J	0.0045 UJ	NS	0.0047 UJ	2.1 J	0.016 J	0.0045 UJ	2.4 J	2.1 J	0.0054 UJ	0.0050 UJ	0.0049 UJ	0.0045 UJ	0.0051 UJ	0.0083 J
gamma-BHC (Lindane)	0.03	0.0047 U	0.0049 U	0.0045 U	0.0045 U	NS	0.0047 U	0.0046 U	0.0046 U	0.0045 U	0.0050 U	0.0046 U	0.0054 U	0.0050 U	0.0049 U	0.0045 U	0.0051 U	0.029
<b>Herbicides</b>																		
Dinoseb	7.0															0.25 U		2.6 J

Notes: Bold italizes font with shading denotes compound exceeding remediation goal. Remediation goals from NJDEP's Class IIA Groundwater Quality Standards (GWQS). \* denotes RGs from 4th Quarter Long-Term Monitoring Event Report, HDR/OBG May, 2010.  
U - Not detected above reported quantitation limit, J - Value estimated, R - Value rejected, K - Value may be biased high, L - Value may be biased low. NJ- Presumptive evidence analyte is present and reported as a tentative identification. Reported value is an estimate.  
N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification". NS - Analyte sample not collected.

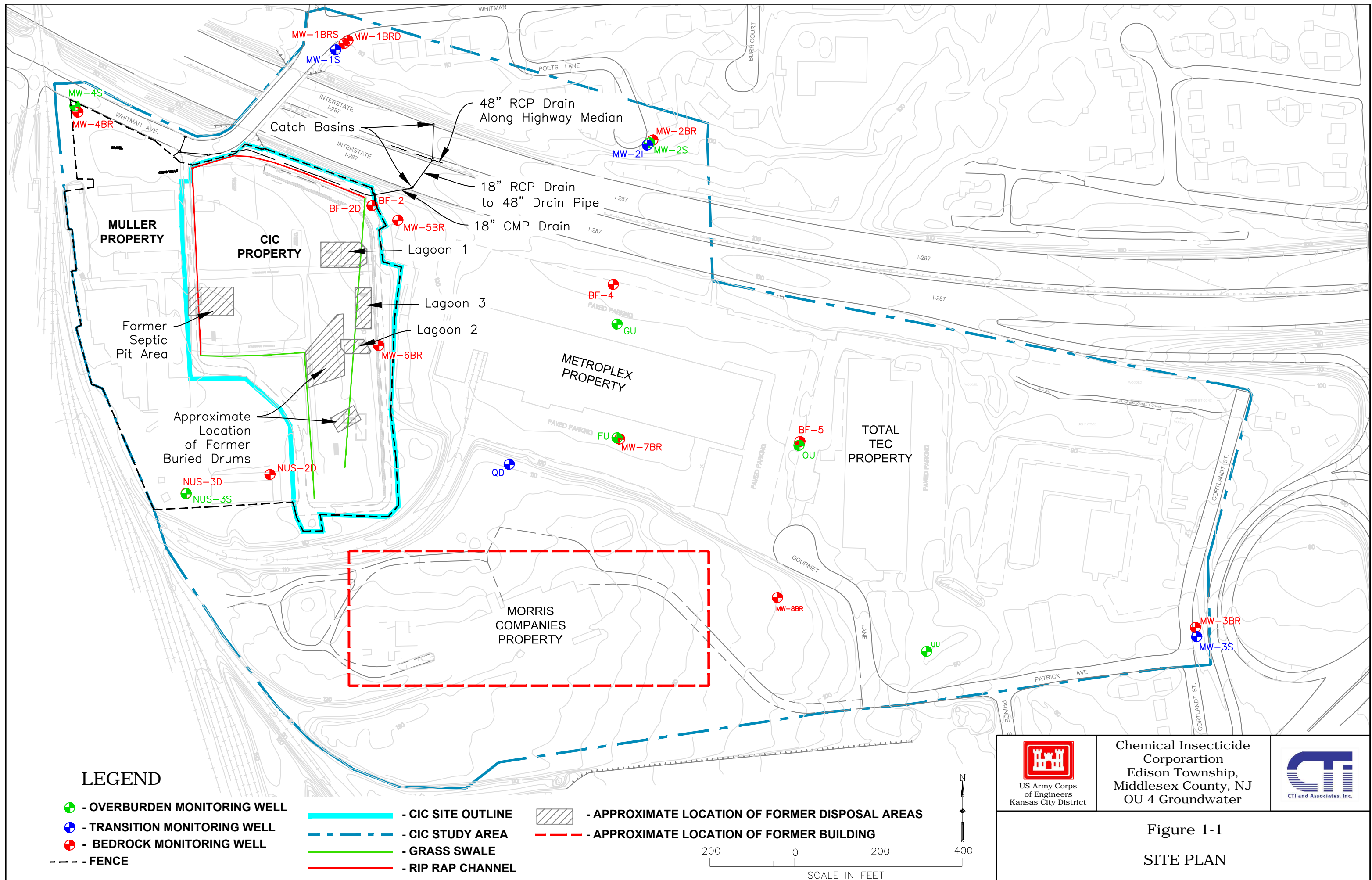
**Table 4-3**  
**QA Sample Laboratory Analytical Results - Summer 2014 Sample Event**  
**Chemical Insecticide Corporation - Edison Township, Middlesex County, New Jersey**  
**Operable Unit 4 (OU4) - Groundwater**

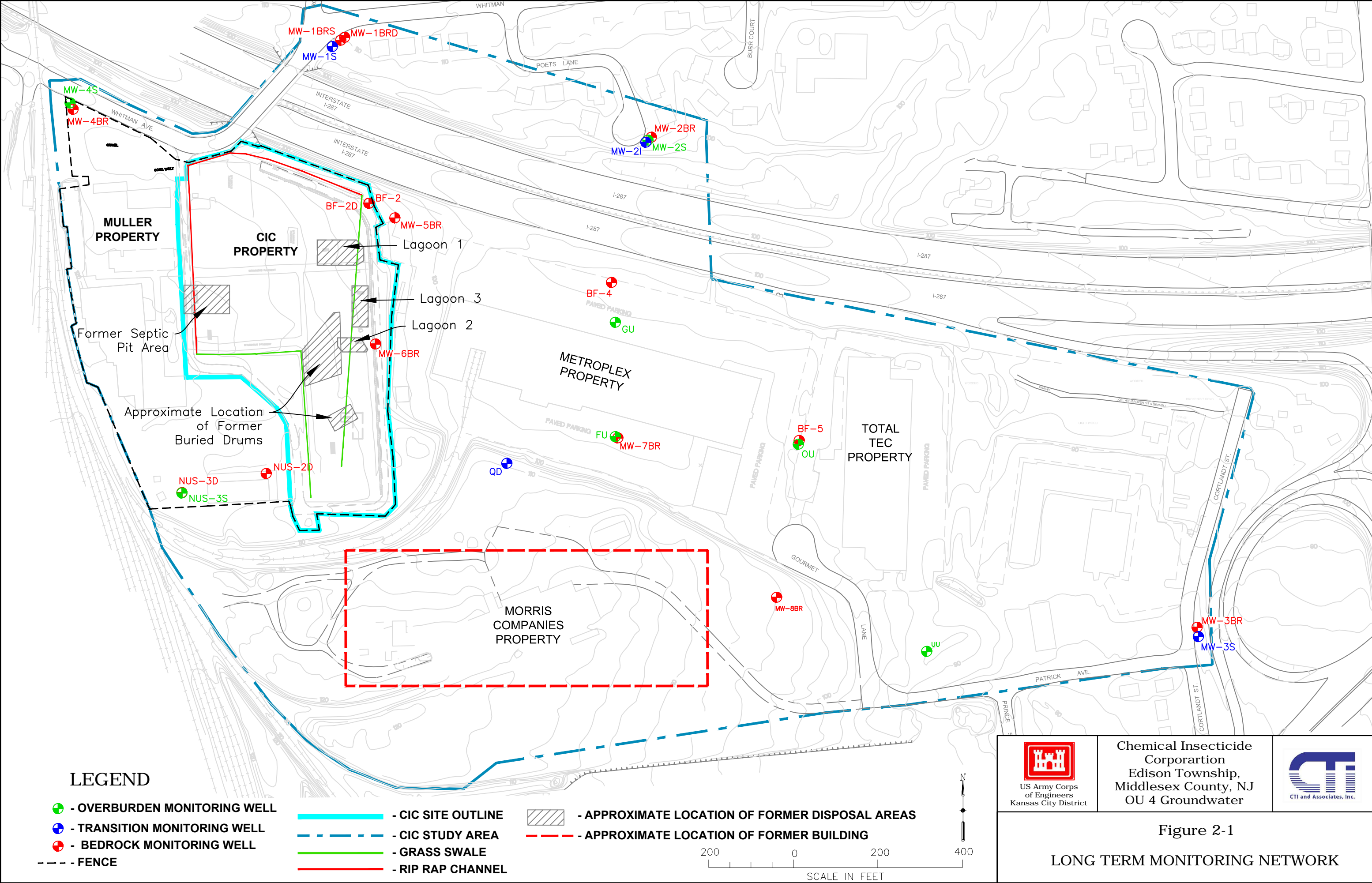
Well Location Sample Date Units	TB-1 09/28/2014 ug/L	ER-1 09/29/2014 ug/L	TB-2 09/30/2014 ug/L	ER-2 09/30/2014 ug/L	TB-3 10/01/2014 ug/L	ER-3 10/01/2014 ug/L
<b>Volatile Organic Compounds</b>						
Acetone	2.8 J	3.8 J	3.9 J	5.0 U	48	5.0 U
Benzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromochloromethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
Bromomethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloromethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibromochloromethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-chloropropane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
1,2-Dibromoethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dichlorodifluoromethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
Ethylbenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methyl acetate	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene chloride	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-pentanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Styrene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
Toluene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
Trichlorofluoromethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
m,p-Xylene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl chloride	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
<b>Metals</b>						
Arsenic				1.0 U		1.0 U
<b>Pesticides</b>						
alpha-BHC				0.0050 U		0.0045 U
beta-BHC				0.0050 U		0.0045 U
delta-BHC				0.0050 UJ		0.0045 UJ
gamma-BHC (Lindane)				0.0050 U		0.0045 U
<b>Herbicides</b>						
Dinoseb				0.25 U		0.25 U

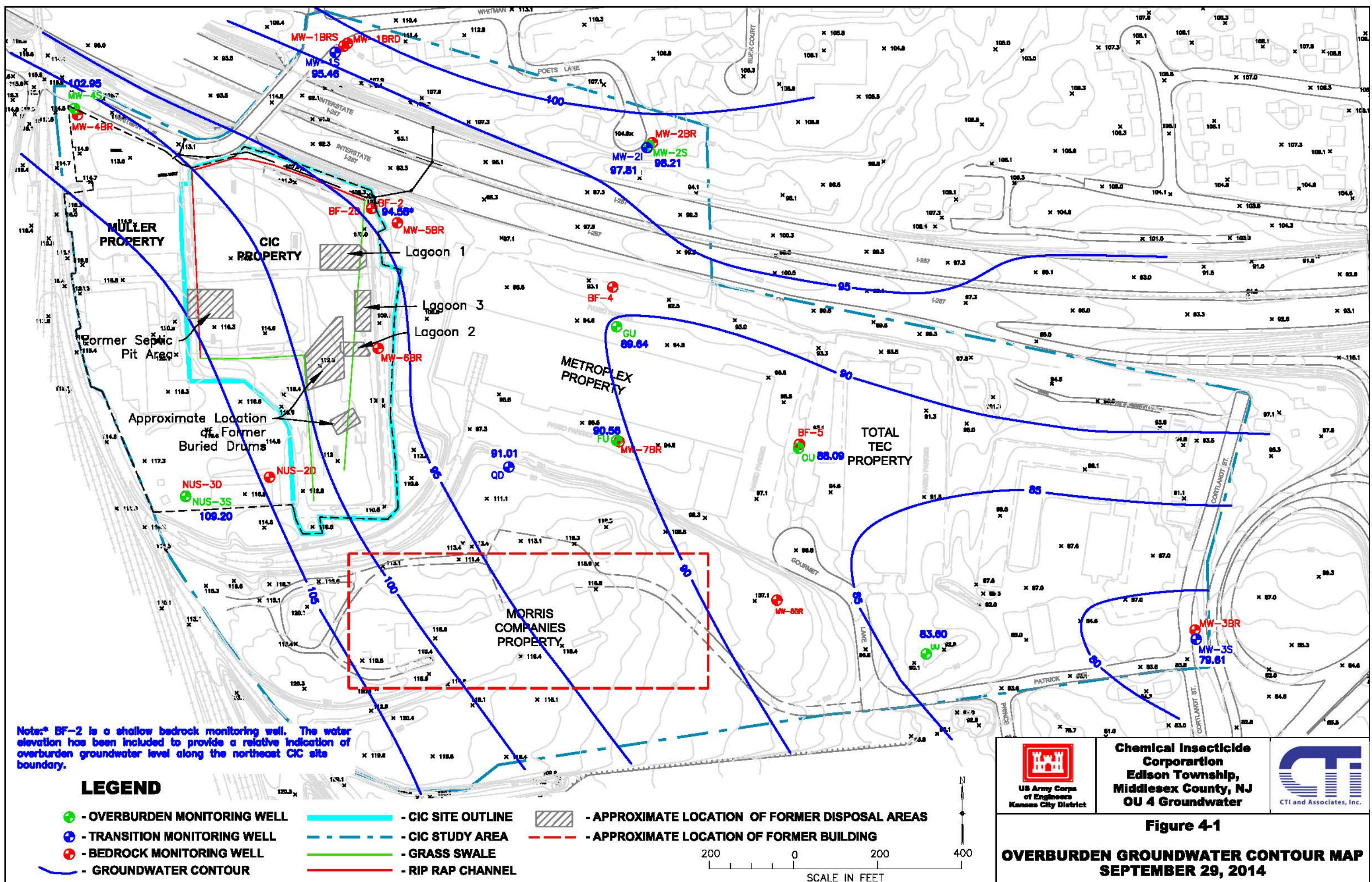
Notes:

U - Not detected above reported quantitation limit, J - Value estimated, L - Value may be biased low, NJ - Presumptive evidence analyte is present.

ER - Equipment Rinsate sample, TB - Trip Blank sample.













## Appendix A

### USEPA Well Assessment Checklists (w/Water Level Measurements)



Geotechnical,  
Environmental  
and Construction  
Materials Engineers

CTI and Associates, Inc.

## STATIC WATER ELEVATIONS

Project Name *C.I.C.*

DATE *9-29-14*

PROJECT NUMBER *1135010003-202*

PROJECT LOCATION *EDISON*

GEOLOGIST/  
ENGINEER *P.R., M.M., MT*

GAUGING METHOD *MiniRae PID and Electronic Interface Probe*

WELL NUMBER	PID READING	DEPTH TO WATER (FEET)	WELL DEPTH (FEET)	STATIC WATER ELEVATION (FEET)
<i>NVS-3S</i>	<i>0.0</i>	<i>11.44'</i>	<i>16.60</i>	<i>SILTY</i>
<i>NVS-3D</i>	<i>0.0</i>	<i>10.80'</i>	<i>40.30</i>	
<i>NVS-2D</i>	<i>0.0</i>	<i>18.41'</i>	<i>111.45</i>	
<i>MW-4S</i>	<i>0.0</i>	<i>15.34'</i>	<i>18.70</i>	
<i>MW-4BR</i>	<i>0.0</i>	<i>24.11'</i>	<i>61.23</i>	
<i>MW-3BR</i>	<i>0.0</i>	<i>6.67'</i>	<i>40.20</i>	
<i>MW-3S</i>	<i>0.0</i>	<i>8.79'</i>	<i>15.60</i>	
<i>UV</i>	<i>0.0</i>	<i>12.13</i>	<i>19.02</i>	
<i>MW-8BR</i>	<i>0.0</i>	<i>15.65</i>	<i>63.24</i>	
<i>BF-5</i>	<i>0.0</i>	<i>10.12</i>	<i>35.10</i>	
<i>OU</i>	<i>0.0</i>	<i>6.61</i>	<i>8.10</i>	
<i>QD</i>	<i>0.0</i>	<i>19.92</i>	<i>47.70</i>	
<i>MW-7BR</i>	<i>0.0</i>	<i>5.45</i>	<i>44.20</i>	
<i>FU</i>	<i>0.0</i>	<i>5.05</i>	<i>13.65</i>	
<i>GU</i>	<i>0.0</i>	<i>5.61</i>	<i>35.45</i>	
<i>BF-4</i>	<i>0.0</i>	<i>1.10</i>	<i>85.10</i>	
<i>MW-6BR</i>	<i>0.0</i>	<i>14.09</i>	<i>78.55</i>	
<i>BF-2D</i>	<i>0.0</i>	<i>14.69</i>	<i>91.38</i>	
<i>BF-2</i>	<i>0.0</i>	<i>10.74</i>	<i>34.03</i>	
<i>5-BR</i>	<i>0.0</i>	<i>9.85</i>	<i>63.53</i>	
<i>MW-2BR</i>	<i>0.0</i>	<i>6.52</i>	<i>90.50</i>	<i>SILTY</i>
<i>MW-2S</i>	<i>0.0</i>	<i>6.55</i>	<i>13.34'</i>	
<i>MW-2I</i>	<i>0.0</i>	<i>6.93</i>	<i>34.67</i>	
<i>MW-1 BRO</i>	<i>0.0</i>	<i>17.38</i>	<i>99.50</i>	
<i>MW-1 BRS</i>	<i>0.0</i>	<i>18.27</i>	<i>44.90</i>	
<i>MW-1S</i>	<i>0.0</i>	<i>15.93</i>	<i>16.95</i>	

NE - No Elevation Recorded

ND - Not Detected

NA - Not Applicable

EPA Region 2 Superfund Well Assessment Checklist

Facility Information	
Facility Name	
Facility Address	
Facility City	
Facility State	
Facility Zip	
Facility Phone	
Facility Fax	
Facility Email	
Facility Website	
Facility Type	
Facility Size	
Facility Age	
Facility Owner	
Facility Manager	
Facility Contact	
Facility Notes	

Site Name:	CIC
Site Address:	30 Whitman Ave
Site County:	Middlesex
Site State:	New Jersey
EPA Site ID Number:	NJD 980484653
Site Owner:	Edison Township
EPA Project Manager:	Mark Austin

<b>Well Locational Information</b>					
Well Name:					
County:					
Township:					
Range:					
Section:					
Nearest Road:					
Nearest Water Body:					
Other Location Notes:					

State Well ID:	25-38179
Well Tag ID:	BF-2
Well Installation Date:	Unknown

	From Log	By GPS
Ground Surface Elevation	106.12	
Latitude	40 31 41.21815	
Longitude	74 22 01.27257	
Northing (State Plane)	617318	
Easting (State Plane)	529088.8	

Cross streets (if applicable):	Gourmet Ln & Patrick Ave
GPS Instrument Used:	N/A
Datum:	N/A
Accuracy/Precision:	N/A

Well Construction Details	
Well ID	W-001
Location	Site A, Plot 10
Depth (m)	15.2
Diameter (mm)	150
Construction Material	Reinforced Concrete
Grout Type	Non-shrink grout
Sealing Method	Double seal with bentonite
Accessories	Submersible pump, float valve
Notes	Regular inspection required for leaks.

Type of well (circle one)	Flush Mount	Stick up	Multilevel Well*
Well lock/security type:	Master Lock		
Elevation (top of inner casing):	105.32		
Surface Casing Material:	Steel		
Well Casing Material:	Stainless Steel		
Surface Casing Diameter:	8		inches
Well Diameter:	5 3/5		inches
Well Depth (as installed):	34.5		ftbgs
Well Depth (as measured):	34.03		fttcc
Screened Interval:	24.5-34.5		ft
Open Hole Interval:	24.5		ft
Depth to Water:	10.74	9-29-14	0940 fttcc
Date:			Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:                      % LEL  
 O<sub>2</sub>:                      40% Vol.  
 CO:                      ppm  
 H<sub>2</sub>O:                      ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

\_\_\_\_\_  
 \_\_\_\_\_

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspected by: P. R.  
 Date of Inspection: 9.29.14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

### Facility Information

### Well Locational Information

Cross streets (if applicable):	Gourmet Ln & Patrick Ave
GPS Instrument Used:	N/A
Datum:	N/A
Accuracy/Precision:	N/A

## Well Construction Details

\*If multilevel well please see attached worksheet.

**EPA Region 2 Superfund Well Assessment Checklist**

**Well Headspace Readings**

PID/FID Reading Taken Inside Top of Casing (if applicable): 0-0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / ppm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

**Well Condition**

Is the concrete pad in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> No <i>PR</i>
Is the measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush Mount - Is it secure from runoff?	<input type="radio"/> Yes	<input type="radio"/> No <i>N/A</i>

Other Comments: MEASURED DEEPER PR

**Recommendations:**

Well needs to be redeveloped	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be resurveyed	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be repaired	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be replaced	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned	<input type="radio"/> Yes	<input checked="" type="radio"/> No
No action necessary	<input checked="" type="radio"/> Yes	<input type="radio"/> No

**Comments**

Inspected by: P. RILEY  
 Date of Inspection: 9-29-14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 30 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-38181  
 Well Tag ID: BF-4  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	94.37	
Latitude	40 31 39.85076	
Longitude	74 21 54.40638	
Northing (State Plane)	617180.5	
Easting (State Plane)	529619.1	

Cross streets (if applicable): Gourmet Ln & Patrick Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 94.02  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 8 inches  
 Well Diameter: 4 inches  
 Well Depth (as installed): 85.4 ftbgs  
 Well Depth (as measured): 85.10 ftboc  
 Screened Interval: 75.4-85.4 ft  
 Open Hole Interval: 0-75.4 ft  
 Depth to Water: 1.10 9-29-14 0928 ftboc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / ppm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by:

PR.

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 30 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-38182  
 Well Tag ID: BF-5  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	95.67	
Latitude	40 31 36.14387	
Longitude	74 21 48.68778	
Northing (State Plane)	616806.0	
Easting (State Plane)	530061.2	

Cross streets (if applicable): Gourmet Ln & Patrick Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*

Well lock/security type: Master Lock

Elevation (top of inner casing): 95.31

Surface Casing Material: Steel

Well Casing Material: Stainless Steel

Surface Casing Diameter: 7 1/4 inches

Well Diameter: 4 inches

Well Depth (as installed): 35.35 ftbgs

Well Depth (as measured): 35.10 fttoc

Screened Interval: 25.35-35.35 ft

Open Hole Interval: 0-25.35 ft

Depth to Water: 10.12 9-29-14 0850 fbtoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

### Well Headspace Readings

0.0 ppm

LEL:	_____	% LEL
O <sub>2</sub> :	_____	40% Vol.
CO:	_____	pm
H <sub>2</sub> O:	_____	ppm

No

## No

No

No

No

**No**

No

No

No

No

---

No

No

No

NO

No.

No


P. RILEY

(Print)

\_\_\_\_\_  
(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-38175  
 Well Tag ID: FU  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	96.16	
Latitude	40 31 36.24288	
Longitude	74 21 54.31350	
Northing (State Plane)	616815.4	
Easting (State Plane)	529626.8	

Cross streets (if applicable): Gourmet Ln & Patrick Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 95.61  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 5 3/8 inches  
 Well Depth (as installed): 15 ftbgs  
 Well Depth (as measured): 13.65' fttoc  
 Screened Interval: 5.0-15.0 ft  
 Open Hole Interval: 0-5.0 ft  
 Depth to Water: 50.5 9-29-14 0919 fttoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

**EPA Region 2 Superfund Well Assessment Checklist**

**Well Headspace Readings**

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:                      % LEL  
 O<sub>2</sub>:                      40% Vol.  
 CO:                      ppm  
 H<sub>2</sub>O:                      ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

**Well Condition**

Is the concrete pad in good condition?	<del>Yes</del>	No <u>N/A</u>
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	No
Has there been physical damage to the well?	Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	Yes	<input checked="" type="radio"/> No
Is the measuring point marked?	<input checked="" type="radio"/> Yes	No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	No
Flush Mount - Is it secure from runoff?	Yes	<input checked="" type="radio"/> No IF LID LOOSE.

Other Comments: PAD UNDER ASPHALT LID BELOW SURFACE OF ASPHALT, WATER POOLS

**Recommendations:**

Well needs to be redeveloped	Yes	<input checked="" type="radio"/> No
Well needs to be resurveyed	Yes	<input checked="" type="radio"/> No
Well needs to be repaired	Yes	<input checked="" type="radio"/> No
Well needs to be replaced	Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned	Yes	<input checked="" type="radio"/> No
No action necessary	<input checked="" type="radio"/> Yes	No

**Comments**

Inspected by: P. RILEY  
 Date of Inspection: 9-29-14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-38177  
 Well Tag ID: GU  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	95.8	
Latitude	40 31 38.90440	
Longitude	74 21 54.29935	
Northing (State Plane)	617084.7	
Easting (State Plane)	529627.5	

Cross streets (if applicable): Gourmet Ln & Patrick Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 95.25  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 4 inches  
 Well Depth (as installed): 36 ftbgs  
 Well Depth (as measured): 35.45 ftbgs  
 Screened Interval: 26-36 ft  
 Open Hole Interval: 0-26 ft  
 Depth to Water: 5.61 9-29-14 0925 ftbtoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / ppm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by: P. RILEY  
 Date of Inspection: 9-29-14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 30 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-54505  
 Well Tag ID: MW-1 BRD  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	111.59	
Latitude	40 31 45.57362	
Longitude	74 21 02.55979	
Northing (State Plane)	617758.6	
Easting (State Plane)	528988.7	

Cross streets (if applicable): Whitman Ave & Rose St  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 111.14  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 11 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 100 ftbgs  
 Well Depth (as measured): 99.50 fttoc  
 Screened Interval: 90-100 ft  
 Open Hole Interval: 0-90 ft  
 Depth to Water: 17.38 9-29-14 1011 fbtoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>O: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No *PR*

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 30 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-54506  
 Well Tag ID: MW-1 BRS  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	111.69	
Latitude	40 31 45.49806	
Longitude	74 22 02.68000	
Northing (State Plane)	617750.9	
Easting (State Plane)	528979.4	

Cross streets (if applicable): Whitman Ave & Rose St  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 111.39  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 45 ftbgs  
 Well Depth (as measured): 44.90 fttoc  
 Screened Interval: 35-45 ft  
 Open Hole Interval: 0-35 ft  
 Depth to Water: 18.27 9-29-14 1014 fttoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:	<u>/</u>	% LEL
O <sub>2</sub> :	<u>/</u>	40% Vol.
CO:	<u>/</u>	ppm
H <sub>2</sub> O:	<u>/</u>	ppm

Do readings indicate unsafe conditions exist? Yes No

## Well Condition

Is the concrete pad in good condition?	<u>Yes</u>	No
Is the well surface casing in good condition?	<u>Yes</u>	No
Is the surface casing vertical?	<u>Yes</u>	No
Is there an internal well seal?	<u>Yes</u>	No
Has there been physical damage to the well?	Yes	<u>No</u>
Does sounding depth match completed depth?	<u>Yes</u>	No
Is the measuring point marked?	<u>Yes</u>	No
Is the well clearly labeled?	<u>Yes</u>	No
Flush Mount - Is it secure from runoff?	<u>Yes</u>	No

Other Comments: \_\_\_\_\_

## Recommendations:

Well needs to be redeveloped	Yes	<u>No</u>
Well needs to be resurveyed	Yes	<u>No</u>
Well needs to be repaired	Yes	<u>No</u>
Well needs to be replaced	Yes	<u>No</u>
Well needs to be properly abandoned	Yes	<u>No</u>
No action necessary	<u>Yes</u>	No

## Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspected by: P. RILEY  
 Date of Inspection: 9.29.14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 30 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-54507  
 Well Tag ID: MW-1S  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	112.01	
Latitude	40 31 45.35210	
Longitude	74 22 02.93646	
Northing (State Plane)	617736.1	
Easting (State Plane)	528959.6	

Cross streets (if applicable): Whitman Ave & Rose St  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 111.39  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 17 ftbgs  
 Well Depth (as measured): 16.95 fttoc  
 Screened Interval: 7.0-17.0 ft  
 Open Hole Interval: 0-7.0 ft  
 Depth to Water: 15.93 9-29-14 1008 ftbtoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>O: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by: PR

Date of Inspection: 9-29-14

Reviewed By: \_\_\_\_\_

(Print)

(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-54502  
 Well Tag ID: MW-2BR  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	104.80	
Latitude	40 31 43.22566	
Longitude	74 21 53.18063	
Northing (State Plane)	617522.1	
Easting (State Plane)	529713.2	

Cross streets (if applicable): Whitman Ave & Poet's Ln  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 104.48  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 90 ftbgs  
 Well Depth (as measured): 90.50 fttoc  
 Screened Interval: 80-90 ft  
 Open Hole Interval: 0-80 ft  
 Depth to Water: 6.52' 9-29-14 0958 fttoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0-0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ pm  
 H<sub>2</sub>O: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No \*

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

\* VERY SILTY ON BOTTOM.

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by: P. RILEY  
 Date of Inspection: 9-29-14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-54503  
 Well Tag ID: MW-2I  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	104.99	
Latitude	40 31 43.10885	
Longitude	74 21 53.34767	
Northing (State Plane)	617510.3	
Easting (State Plane)	529700.4	

Cross streets (if applicable): Whitman Ave & Poet's Ln  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 104.74  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 35 ftbgs  
 Well Depth (as measured): 34.67 fttoc  
 Screened Interval: 25-35 ft  
 Open Hole Interval: 0-25 ft  
 Depth to Water: 6.93 9-29-14 0955 fbtoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0-0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / ppm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

\_\_\_\_\_

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-54504  
 Well Tag ID: MW-2S  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	105.06	
Latitude	40 31 43.15987	
Longitude	74 21 53.28735	
Northing (State Plane)	617515.4	
Easting (State Plane)	529705.0	

Cross streets (if applicable): Whitman Ave & Poet's Ln  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 104.76  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 14 ftbgs  
 Well Depth (as measured): 13.34 fttoc  
 Screened Interval: 4.0-14.0 ft  
 Open Hole Interval: 0-4 ft  
 Depth to Water: 6.55 9-29-14 0952 ftbtoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / ppm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-54500  
 Well Tag ID: MW-3BR  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	86.40	
Latitude	40 31 31.77435	
Longitude	74 21 36.52967	
Northing (State Plane)	616365.4	
Easting (State Plane)	53100.7	

Cross streets (if applicable): Patrick Ave & Cortlandt St  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 87.85  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 6 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 38 ftbgs  
 Well Depth (as measured): 40.20 fttoc  
 Screened Interval: 28-38 ft  
 Open Hole Interval: 0-28 ft  
 Depth to Water: 6.67' 9-29-14 0830 fttoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / ppm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No N/A

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

### Facility Information

### Well Locational Information

Cross streets (if applicable):	Patrick Ave & Cortlandt St
GPS Instrument Used:	N/A
Datum:	N/A
Accuracy/Precision:	N/A

## Well Construction Details

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ pm  
 H<sub>2</sub>O: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No N/A

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by: P. RILEY  
 Date of Inspection: 9-29-14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## Facility Information

### Well Locational Information

## Well Construction Details

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / ppm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

\_\_\_\_\_

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

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 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

### Facility Information

### Well Locational Information

## Well Construction Details

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / pm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

### Facility Information

Site Name:	CIC
Site Address:	30 Whitman Ave
Site County:	Middlesex
Site State:	New Jersey
EPA Site ID Number:	NJD 980484653
Site Owner:	Edison Township
EPA Project Manager:	Mark Austin

State Well ID:	25-68927
Well Tag ID:	MW-5BR
Well Installation Date:	Unknown

	From Log	By GPS
Ground Surface Elevation	105.12	
Latitude	40 31 41.43469	
Longitude	74 22 00.94580	
Northing (State Plane)	617340.0	
Easting (State Plane)	529113.9	

Cross streets (if applicable):	Patrick Ave & Gourmet Ln
GPS Instrument Used:	N/A
Datum:	N/A
Accuracy/Precision:	N/A

Type of well (circle one)	Flush Mount	Stick up	Multilevel Well*
Well lock/security type:	Master Lock		
Elevation (top of inner casing):	104.67		
Surface Casing Material:	Steel		
Well Casing Material:	Stainless Steel		
Surface Casing Diameter:	7 1/4		inches
Well Diameter:	2		inches
Well Depth (as installed):	63		ftbgs
Well Depth (as measured):	63.53		fttcc
Screened Interval:	53-63		ft
Open Hole Interval:	0-53		ft
Depth to Water:	9.85	9-29-14	0838 fbtcc
	Date:		Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:	<u>          </u>	% LEL
O <sub>2</sub> :	<u>          </u>	40% Vol.
CO:	<u>          </u>	ppm
H <sub>2</sub> O:	<u>          </u>	ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

\_\_\_\_\_

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

EPA Region 2 Superfund Well Assessment Checklist	

Facility Information	
Facility Name	
Facility Address	
Facility City	
Facility State	
Facility Zip	
Facility Phone	
Facility Fax	
Facility Email	
Facility Website	
Facility Type	
Facility Size	
Facility Age	
Facility Owner	
Facility Manager	
Facility Contact	
Facility Notes	

Site Name:	CIC
Site Address:	30 Whitman Ave
Site County:	Middlesex
Site State:	New Jersey
EPA Site ID Number:	NJD 980484653
Site Owner:	Edison Township
EPA Project Manager:	Mark Austin

<b>Well Locational Information</b>
------------------------------------

State Well ID:	25-68928
Well Tag ID:	MW-6BR
Well Installation Date:	Unknown

	From Log	By GPS
Ground Surface Elevation	109.24	
Latitude	40 31 38.61381	
Longitude	74 22 01.59608	
Northing (State Plane)	617054.4	
Easting (State Plane)	529064.2	

Cross streets (If applicable):	Patrick Ave & Gourmet Ln
GPS Instrument Used:	N/A
Datum:	N/A
Accuracy/Precision:	N/A

Well Construction Details	
Well ID	
Well Type	
Well Depth (ft)	
Well Diameter (in)	
Well Completion	
Well Status	
Well Location	
Well Owner	
Well Operator	
Well Construction Date	
Well Construction Notes	

Type of well (circle one)	Flush Mount	Stick up	Multilevel Well*
Well lock/security type:	Master Lock		
Elevation (top of inner casing):	108.69		
Surface Casing Material:	Steel		
Well Casing Material:	PVC		
Surface Casing Diameter:	7 1/4		inches
Well Diameter:	2		inches
Well Depth (as installed):	79		ftbgs
Well Depth (as measured):	79.55		fttoc
Screened Interval:	63-79		ft
Open Hole Interval:	0-63		ft
Depth to Water:	14.09	9-29-14	0933 fbtoc
	Date:	Time:	

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: / % LEL  
 O<sub>2</sub>: / 40% Vol.  
 CO: / ppm  
 H<sub>2</sub>O: / ppm

Do readings indicate unsafe conditions exist? Yes No

## Well Condition

Is the concrete pad in good condition? Yes No  
 Is the well surface casing in good condition? Yes No  
 Is the surface casing vertical? Yes No  
 Is there an internal well seal? Yes No  
 Has there been physical damage to the well? Yes No  
 Does sounding depth match completed depth? Yes No  
 Is the measuring point marked? Yes No  
 Is the well clearly labeled? Yes No  
 Flush Mount - Is it secure from runoff? Yes No

Other Comments: \_\_\_\_\_

## Recommendations:

Well needs to be redeveloped Yes No  
 Well needs to be resurveyed Yes No  
 Well needs to be repaired Yes No  
 Well needs to be replaced Yes No  
 Well needs to be properly abandoned Yes No  
 No action necessary Yes No

## Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspected by: P. RILEY  
 Date of Inspection: 9-29-14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-68929  
 Well Tag ID: MW-7BR  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	96.25	
Latitude	40 31 36.21850	
Longitude	74 21 54.25281	
Northing (State Plane)	616812.9	
Easting (State Plane)	529631.5	

Cross streets (if applicable): Patrick Ave & Gourmet Ln  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 95.80  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 44 ftbgs  
 Well Depth (as measured): 44.20 fttoc  
 Screened Interval: 34-44 ft  
 Open Hole Interval: 0-34 ft  
 Depth to Water: 5.45 9-29-14 0917 fbtoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ pm  
 H<sub>2</sub>O: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

### Facility Information

### Well Locational Information

Cross streets (if applicable):	Patrick Ave & Gourmet Ln
GPS Instrument Used:	N/A
Datum:	N/A
Accuracy/Precision:	N/A

### Well Construction Details

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 00 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:	<u>/</u>	% LEL
O <sub>2</sub> :	<u>/</u>	40% Vol.
CO:	<u>/</u>	ppm
H <sub>2</sub> O:	<u>/</u>	ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 30 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-31790  
 Well Tag ID: NUS-2D  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	115.92	
Latitude	40 31 35.56625	
Longitude	74 22 04.16614	
Northing (State Plane)	616745.8	
Easting (State Plane)	528866.2	

Cross streets (if applicable): Whitman Ave & Heathcote Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: Master Lock

Elevation (top of inner casing): 116.44

Surface Casing Material: Steel

Well Casing Material: Stainless Steel

Surface Casing Diameter: 8 inches

Well Diameter: 6 inches

Well Depth (as installed): 105 ftbgs

Well Depth (as measured): 111.45 fttoc

Screened Interval: 89-105 ft

Open Hole Interval: 0-89 ft

Depth to Water: 18.41' fbtoc

Date: 9-29-14

Time: 1037

\*If multilevel well please see attached worksheet.

**EPA Region 2 Superfund Well Assessment Checklist**

**Well Headspace Readings**

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:	<u>/</u>	% LEL
O <sub>2</sub> :	<u>/</u>	40% Vol.
CO:	<u>/</u>	ppm
H <sub>2</sub> O:	<u>/</u>	ppm

Do readings indicate unsafe conditions exist?

Yes

No

**Well Condition**

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

N/A

Other Comments:

WELL IS DEEPER THAN RECORDED DEPTH

**Recommendations:**

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

**Comments**


Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

# **EPA Region 2 Superfund Well Assessment Checklist**

## **Facility Information**

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## **Well Locational Information**

State Well ID: 25-31791  
 Well Tag ID: NUS-3S  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	120.29	
Latitude	40 31 34.93011	
Longitude	74 22 07.62930	
Northing (State Plane)	616681.0	
Easting (State Plane)	528598.9	

Cross streets (if applicable): Whitman Ave & Heathcote Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## **Well Construction Details**

Type of well (circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 120.64  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 6 inches  
 Well Diameter: 4 inches  
 Well Depth (as installed): 14 ftbgs  
 Well Depth (as measured): 16.60 fttoc  
 Screened Interval: 4.0-14.0 ft  
 Open Hole Interval: 0-4 ft  
 Depth to Water: 11.44' fbtoc

Date:

9-29-14

Time:

1030

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:	<u>                    </u>	% LEL
O <sub>2</sub> :	<u>                    </u>	40% Vol.
CO:	<u>                    </u>	ppm
H <sub>2</sub> O:	<u>                    </u>	ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

N/A

Other Comments:

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-31792  
 Well Tag ID: NUS-3D  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	119.40	
Latitude	40 31 34.95513	
Longitude	74 22 07.72444	
Northing (State Plane)	616683.5	
Easting (State Plane)	528591.5	

Cross streets (if applicable): Whitman Ave & Heathcote Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: Master Lock

Elevation (top of inner casing): 120.02

Surface Casing Material: Steel

Well Casing Material: Stainless Steel

Surface Casing Diameter: 8 1/2 inches

Well Diameter: 6 1/2 inches

Well Depth (as installed): 43 ftbgs

Well Depth (as measured): 40.30 SOFT fttoc

Screened Interval: 25-43 ft

Open Hole Interval: 0-25 ft

Depth to Water: 10.80' fbtoc

Date: 9-29-14

Time: 1032

\*If multilevel well please see attached worksheet.

**EPA Region 2 Superfund Well Assessment Checklist**

**Well Headspace Readings**

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:	<u>          </u>	% LEL
O <sub>2</sub> :	<u>          </u>	40% Vol.
CO:	<u>          </u>	ppm
H <sub>2</sub> O:	<u>          </u>	ppm

Do readings indicate unsafe conditions exist?

Yes

No

**Well Condition**

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

N/A

Other Comments:

SILTY ON BOTTOM

**Recommendations:**

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

**Comments**

Inspected by: P. RILEY  
 Date of Inspection: 9-29-14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 30 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-38176  
 Well Tag ID: OU  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	95.00	
Latitude	40 31 36.05901	
Longitude	74 21 48.71515	
Northing (State Plane)	616797.4	
Easting (State Plane)	530059.1	

Cross streets (if applicable): Gourmet Ln & Patrick Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 94.70  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 4 1/2 inches  
 Well Depth (as installed): 8.5 ftbgs  
 Well Depth (as measured): 8.10 ftboc  
 Screened Interval: 3.5-8.5 ft  
 Open Hole Interval: 0-3.5 ft  
 Depth to Water: 6.61 - 9.29-14 0841 ftboc  
 Date: Time:

\*If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL: 1 % LEL  
 O<sub>2</sub>: 1 40% Vol.  
 CO: 1 pm  
 H<sub>2</sub>O: 1 ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments:

\_\_\_\_\_  
 \_\_\_\_\_

## Recommendations:

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

## Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspected by:

P. RILEY

Date of Inspection:

9-29-14

Reviewed By:

(Print)

(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 125 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-30735  
 Well Tag ID: QD  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	111.18	
Latitude	40 31 35.61931	
Longitude	74 21 57.63317	
Northing (State Plane)	616751.9	
Easting (State Plane)	529370.6	

Cross streets (if applicable): Gourmet Ln & Patrick Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Master Lock  
 Elevation (top of inner casing): 110.93  
 Surface Casing Material: Steel  
 Well Casing Material: Stainless Steel  
 Surface Casing Diameter: 7 1/4 inches  
 Well Diameter: 4 inches  
 Well Depth (as installed): 48 ftbgs  
 Well Depth (as measured): 47.70 fttoc  
 Screened Interval: 38-48 ft  
 Open Hole Interval: 0-38 ft  
 Depth to Water: 19.92' 9-29-14 0843 fttoc  
 Date: Time:

\*If multilevel well please see attached worksheet.

**EPA Region 2 Superfund Well Assessment Checklist**

**Well Headspace Readings**

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:                      % LEL  
 O<sub>2</sub>:                      40% Vol.  
 CO:                      ppm  
 H<sub>2</sub>O:                      ppm

Do readings indicate unsafe conditions exist?

Yes

No

**Well Condition**

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

No

Other Comments: \_\_\_\_\_

**Recommendations:**

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

**Comments**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspected by: P. R. G.  
 Date of Inspection: 9-24-11  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: CIC  
 Site Address: 30 Whitman Ave  
 Site County: Middlesex  
 Site State: New Jersey  
 EPA Site ID Number: NJD 980484653  
 Site Owner: Edison Township  
 EPA Project Manager: Mark Austin

## Well Locational Information

State Well ID: 25-30737  
 Well Tag ID: UU  
 Well Installation Date: Unknown

	From Log	By GPS
Ground Surface Elevation	93.93	
Latitude	40 31 31.23213	
Longitude	74 21 44.78766	
Northing (State Plane)	616309.5	
Easting (State Plane)	530363.2	

Cross streets (if applicable): Gourmet Ln & Patrick Ave  
 GPS Instrument Used: N/A  
 Datum: N/A  
 Accuracy/Precision: N/A

## Well Construction Details

Type of well (circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: Master Lock

Elevation (top of inner casing): 95.73

Surface Casing Material: Steel

Well Casing Material: Stainless Steel

Surface Casing Diameter: 8 inches

Well Diameter: 4 inches

Well Depth (as installed): 18 ftbgs

Well Depth (as measured): 19.02 fttoc

Screened Interval: 8.0-18.0 ft

Open Hole Interval: 0-8.0 ft

Depth to Water: 12.13      9-29-14      0837      fbtoc

Date:      Time:

\*If multilevel well please see attached worksheet.

**EPA Region 2 Superfund Well Assessment Checklist**

**Well Headspace Readings**

PID/FID Reading Taken Inside Top of Casing (if applicable): 0.0 ppm

Multi-Gas/CGI Meter Readings Taken (if applicable):

LEL:	<u>/</u>	% LEL
O <sub>2</sub> :	<u>/</u>	40% Vol.
CO:	<u>/</u>	ppm
H <sub>2</sub> O:	<u>/</u>	ppm

Do readings indicate unsafe conditions exist?

Yes

No

**Well Condition**

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is the measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush Mount - Is it secure from runoff?

Yes

N/A

No

PR

Other Comments:

**Recommendations:**

Well needs to be redeveloped

Yes

No

Well needs to be resurveyed

Yes

No

Well needs to be repaired

Yes

No

Well needs to be replaced

Yes

No

Well needs to be properly abandoned

Yes

No

No action necessary

Yes

No

**Comments**

Inspected by: P. RILEY  
 Date of Inspection: 9-29-14  
 Reviewed By: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

Appendix B

Groundwater Sample Logs



Geotechnical,  
Environmental  
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Materials Engineers

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## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

BF-2

[illegible]



Geotechnical,  
Environmental  
and Construction  
Materials Engineers

CTI and Associates, Inc.

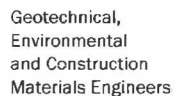
## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL

ID: BF-20

[illegible]



## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

Mw-BF<sub>4</sub>  
MS/MSD

[illegible]



Geotechnical,  
Environmental  
and Construction  
Materials Engineers

## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

FW

Project Name:	Chemical Insecticide Corporation
---------------	----------------------------------

Project Number:

1135010003-202

Date: 9-30-14

Project Location:	Edison, New Jersey
-------------------	--------------------

Scientist/ Engineer:

M. M.

Sample Time: 1138

Screened Interval:	5-15'
--------------------	-------

Depth to Water: 5.09

Well  
Depth: 13.61'

Sample *VOC, PEST, METALS*  
Parameters:

Site Conditions: Sunny, 70°

Observed Purge Rate:  
(ml/minute) 140

Total  
Volume *5.0 L*  
Purged:

Pump Inlet  
Depth: 10

[illegible]



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Environmental  
and Construction  
Materials Engineers

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# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

Pg. 1 of 2  
FU  
RESAMPLE

Project Name:	Chemical Insecticide Corporation			Project Number:	1135010003-202			Date:	10-1-14	
Project Location:	Edison, New Jersey			Scientist/ Engineer:	M. M.			Sample Time:	1635	
Screened Interval:	5-15'			Depth to Water:	5.49'		Well Depth:	13.61'	Sample Parameters:	Herbs.
Site Conditions:	Cloudy, 60°			Observed Purge Rate: (Ml/minute)	125		Total Volume Purged:	11.3 L	Pump Inlet Depth:	10'
Time	Purge Rate (ml/min)	Depth to Water	Temp (C°)	Specific Conductivity (µs/cm²)	pH	DO (mg/L)	ORP (mV)	Turbidity	Comments	
1515	125	5.95'	20.41	0.643	6.87	1.46	155	1.9		
1520	125	5.99'	20.11	0.660	6.56	1.39	158	0.0		
1525	125	6.05'	19.86	0.634	6.59	1.36	162	0.0		
1530	125	6.08'	19.62	0.630	6.59	1.33	160	0.0		
1535	125	6.09'	19.38	0.626	6.57	1.29	161	0.0		
1540	125	6.11'	19.17	0.622	6.52	1.26	163	0.0		
1545	125	6.14'	19.02	0.619	6.51	1.23	163	0.0		
1550	125	6.21'	18.88	0.618	6.55	1.20	166	0.0		
1555	125	6.28'	18.72	0.615	6.54	1.17	167	0.0		
1600	125	6.29'	18.64	0.614	6.50	1.16	166	0.0		



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## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

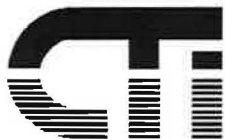
WELL  
ID:

FU

RESAMPLE

2072

[illegible]



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and Construction  
Materials Engineers

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# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

60

[illegible]



## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

MW-ZBR

[illegible]



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Materials Engineers

CTI and Associates, Inc.

# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

1 of 2  
WELL ID: Mw-2S

Project Name:	Chemical Insecticide Corporation			Project Number:	1135010003-202				Date:	9-29-14	
Project Location:	Edison, New Jersey			Scientist/ Engineer:	M.M.				Sample Time:	1330	
Screened Interval:	4-14'			Depth to Water:	6.54'		Well Depth:	13.34'		Sample Parameters:	Metals, VOC's, pest.
Site Conditions:	Cloudy, 70°			Observed Purge Rate: (ML/minute)	100		Total Volume Purged:	6.0 L		Pump Inlet Depth:	9'
Time	Purge Rate (ml/min)	Depth to Water	Temp (C°)	Specific Conductivity (µs/cm²)	pH	DO (mg/L)	ORP (mV)	Turbidity	Comments		
1235	100	7.02'	19.32	0.547	6.32	6.33	40	39.8			
1240	100	7.26'	19.20	0.537	6.27	2.25	55	27.2			
1245	100	7.38'	19.11	0.530	6.26	1.74	83	18.4			
1250	100	7.49	19.10	0.525	6.28	1.59	97	13.2			
1255	100	7.68	18.90	0.522	6.31	1.47	87	6.7			
1300	100	7.89	18.88	0.518	6.29	1.33	58	2.9			
1305	100	8.05	19.02	0.518	6.30	1.15	28	0.0			
1310	100	8.12	18.99	0.519	6.27	1.06	14	0.0			
1315	100	8.30	18.87	0.521	6.33	1.01	7	0.0			
1320	100	8.47	18.89	0.521	6.33	0.96	3	3.5			



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Materials Engineers

# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

2 of 2

MW-2S

Project Name:	Chemical Insecticide Corporation
---------------	----------------------------------

Project Number:	1135010003-202
-----------------	----------------

Date: 9-29-14

Project Location:	Edison, New Jersey
-------------------	--------------------

Scientist/ Engineer: J.M.M

Sample Time: 1330

Screened Interval: 4-14'

Depth to Water: 6.541

Well Depth: 13.34

Sample Parameters: Metals, VOC's, Pest.

Site Conditions: Cloudy, 70°

Observed Purge Rate:  
(ML/minute) 100

Total  
Volume  
Purged: 6.0 L

Pump Inlet  
Depth: 9

Time	Flow Rate (ml/min)	Depth to Water	Temp (C°)	Specific Conductivity (µs/cm²)	pH	DO (mg/L)	ORP (mV)	Turbidity	Comments
------	-----------------------	----------------	-----------	-----------------------------------	----	--------------	-------------	-----------	----------

1325	100	8.65	18.92	6.522	6.33	0.94	0	3.1
------	-----	------	-------	-------	------	------	---	-----

[illegible]



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## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

MW-3BR

[illegible]



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and Construction  
Materials Engineers

CTI and Associates, Inc.

# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

MW-35

Project Name:	Chemical Insecticide Corporation	Project Number:	1135010003-202		Date: 10-1-14				
Project Location:	Edison, New Jersey	Scientist/ Engineer:	M. M.		Sample Time: 1350				
Screened Interval:	4-14'	Depth to Water:	8.79'		Well Depth:	15.59		Sample Parameters: VOC's, metals, Pests.	
Site Conditions:	Cloudy, 65°	Observed Purge Rate: (ML/minute)	100		Total Volume Purged:	5.5 L		Pump Inlet Depth: 9'	
Time	Purge Rate (ml/min)	Depth to Water	Temp (C°)	Specific Conductivity (µs/cm²)	pH	DO (mg/L)	ORP (mV)	Turbidity	Comments
1300	100	9.37	18.29	1.32	4.18	1.82	345	24.3	
1305	100	9.56	18.54	1.31	4.14	1.71	348	11.9	
1310	100	9.64	18.62	1.31	4.13	1.63	343	8.2	
1315	100	9.71	18.73	1.31	4.13	1.52	341	4.4	
1320	100	9.89	18.84	1.31	4.13	1.36	338	1.9	
1325	100	10.10	18.91	1.31	4.14	1.29	334	0.9	
1330	100	10.19	18.94	1.30	4.14	1.15 <del>1.3</del> mm	334	4.9	
1335	100	10.30 <del>10.30</del> mm	18.99	1.31	4.18	1.03	330	16.7	
1340	100	10.39	19.03	1.30	4.19	0.98	332	20.0	
1345	100	10.51	19.06	1.30	4.17	0.92	333	20.5	



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Materials Engineers

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# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

1 of 2  
WELL ID: MW-4BR

Project Name:	Chemical Insecticide Corporation			Project Number:	1135010003-202			Date:	9-29-14		
Project Location:	Edison, New Jersey			Scientist/ Engineer:	M. M.			Sample Time:	1110		
Screened Interval:	48-58'			Depth to Water:	24.19'		Well Depth:	61.23		Sample Parameters:	Metals, VOC's, Pest.
Site Conditions:	Sunny, 70°			Observed Purge Rate: (ML/minute)	100		Total Volume Purged:	7.0L		Pump Inlet Depth:	53'
Time	Purge Rate (ml/min)	Depth to Water	Temp (C°)	Specific Conductivity (µs/cm²)	pH	DO (mg/L)	ORP (mV)	Turbidity	Comments		
<del>0935</del> mm	<del>100</del> mm	<del>24.15'</del> mm							Horiba leaked, fixed 0945		
0955	100	24.14'	17.12	0.444	6.02	1.52	-36	152			
1000	100	24.11'	17.04	0.444	6.14	1.43	-43	140			
1005	100	24.16'	17.08	0.445	6.16	1.39	-47	130			
1010	100	24.12'	17.09	0.446	6.26	1.33	-45	101			
1015	100	24.15'	17.08	0.447	6.22	1.29	-49	86.4			
1020	100	24.15'	17.06	0.447	6.24	1.26	-50	76.6			
1025	100	24.19'	17.02	0.448	6.30	1.22	-49	74.2			
1030	100	24.19'	17.00	0.448	6.31	1.19	-49	66.8			
1035	100	24.19'	17.06	0.449	6.32	1.15	-49	42.6			



## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

MW-4BR

[illegible]



## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL ID:

MW - SBR

[illegible]



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# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

Mw-6Br

Project Name:	Chemical Insecticide Corporation	Project Number:	1135010003-202		Date: 9/30/14				
Project Location:	Edison, New Jersey	Scientist/ Engineer:	Mark Turner		Sample Time: 1245				
Screened Interval:	63-79'	Depth to Water:	14.27'		Well Depth:	79.00'		Sample Parameters: Vol's, Metals, PEST.	
Site Conditions:	Sunny, 70's.	Observed Purge Rate: (MI/minute)	210 mL/min		Total Volume Purged:	2.5 GAL.		Pump Inlet Depth:	71'
Time	Purge Rate (ml/min)	Depth to Water	Temp (C°)	Specific Conductivity (µs/cm²)	pH	DO (mg/L)	ORP (mV)	Turbidity	Comments
1200	210	12.80	22.31	.361	7.26	6.03	52	68.7	
1205		14.20	18.99	.370	7.34	7.11	-24	57.2	
1210		16.14	16.77	.377	7.48	8.37	-70	41.8	
1215		17.43	17.75	.376	7.49	8.13	-73	40.2	
1220		18.82	17.72	.351	7.52	7.70	-74	38.6	
1225		20.01	17.69	.333	7.55	7.20	-75	37.5	
1230		21.12	17.71	.301	7.59	6.42	-74	35.0	
1235		22.25	17.77	.289	7.60	5.71	-74	34.2	
1240		23.34	17.89	.271	7.61	5.50	-73	33.1	
1245	✓	24.37	17.85	.274	7.61	5.47	-71	32.6	



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# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

MW-7BR  
182

Project Name:	Chemical Insecticide Corporation	Project Number:	1135010003-202		Date: 9-30-14				
Project Location:	Edison, New Jersey	Scientist/ Engineer:	M.M.		Sample Time: 1415				
Screened Interval:	34-44'	Depth to Water:	5.46		Well Depth:	44.14'		Sample Parameters: VOC, METALS, PEST.	
Site Conditions:	CLOUDY 60'	Observed Purge Rate: (ML/minute)	100		Total Volume Purged:	7.5L		Pump Inlet Depth: 39'	
Time	Purge Rate (ml/min)	Depth to Water	Temp (C°)	Specific Conductivity (µs/cm²)	pH	DO (mg/L)	ORP (mV)	Turbidity	Comments
1305	100	5.89	21.12	0.602	6.76	1.26	178	0.0	
1310	100	5.89	20.97	0.599	6.72	1.23	174	0.0	
1315	100	5.89	20.75	0.571	6.63	1.06	169	0.0	
1320	100	5.89	20.57	0.560	6.56	1.04	167	0.0	
1325	100	5.93	20.24	0.552	6.54	1.02	169	0.0	
1330	100	5.96	19.77	0.528	6.47	0.99	164	0.0	
1335	100	6.05	19.61	0.515	6.43	0.97	162	0.0	
1340	100	6.12	19.42	0.492	6.38	0.96	159	0.0	
1345	100	6.12	19.29	0.483	6.33	0.95	159	0.0	
1350	100	6.11	19.32	0.469	6.31	0.95	161	0.0	



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## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

MW - 7BR  
272

[illegible]



## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

NUS-20

[illegible]



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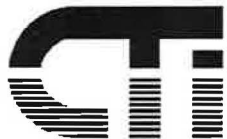
# FIELD WORKSHEET

## MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL ID: *+ DUP-1*  
*NUS-3S*  
*142*

Project Name:	Chemical Insecticide Corporation			Project Number:	1135010003-202			Date:	9-28-14	
Project Location:	Edison, New Jersey			Scientist/ Engineer:	M. M.			Sample Time:	1410	
Screened Interval:	4-14'			Depth to Water:	11.44'			Well Depth:	16.60 SOFT	
Site Conditions:	80°, sunny, P. Cloudy			Observed Purge Rate: (ML/minute)	170			Total Volume Purged:	≈ 13L	
								Sample Parameters:	Voc's, metals, pest.	
								Pump Inlet Depth:	9'	

Time	Purge Rate (ml/min)	Depth to Water	Temp (C°)	Specific Conductivity (µs/cm²)	pH	DO (mg/L)	ORP (mV)	Turbidity	Comments
1255	140	11.44'	25.05	0.123	5.35	4.70	284	160	
1300	140	11.44'	21.27	0.118	4.81	3.24	357	154	
1305	140	11.44'	20.11	0.117	4.75	2.72	346	136	
1310	140	11.44'	19.96	0.115	4.89	2.68	332	132	
1315	140	11.44'	19.24	0.116	4.92	2.66	326	108	
1320	140	11.44'	19.38	0.116	4.90	2.69	323	86.4	
<del>1325</del> 1320	140	11.44'	19.21	0.117	4.90	2.88	328	85.8	
1330	170	11.44'	18.80	0.115	4.93	2.81	322	55.9	
1335	170	11.44'	18.65	0.117	4.94	2.83	321	45.7	
1340	170	11.44'	18.88	0.116	4.91	2.99	319	34.2	



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## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

Nas-35

2072 + DVP-1

[illegible]



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## FIELD WORKSHEET

### MONITORING WELL PURGING AND SAMPLE COLLECTION

WELL  
ID:

Q2

[illegible]

Appendix C  
Chain-of-Custody Records  
And  
CIC Sample Trip Report

## **SAMPLING TRIP REPORT**

<b>Site Name</b>	Chemical Insecticide Corporation
<b>CERCLIS ID Number</b>	NJD980484653
<b>Sampling Dates</b>	September 28, 2014 through October 1, 2014
<b>CLP Case Number</b>	44719
<b>Site Location</b>	30 Whitman Avenue, Edison, NJ 08837
<b>Sample Descriptions</b>	Groundwater

Water samples were shipped to the locations listed in Table 1 below.

**Table 1**  
**Analytical Laboratories**

<b>Case Number</b>	<b>Sample Type</b>	<b>Name and Address of Laboratory</b>
No Case #	TAL Metals (Reporting As Only) Pesticides MRN 2080.0	DESA 2890 Woodbridge Ave. Edison, NJ 08837 (732) 321-6707
44719	Herbicides MRN 2081.0 TCL Volatiles	KAP Technologies 9391 Grogans Mill Rd. The Woodlands, TX 77380 281 367 0065

**Table 2**  
**Sample Dispatch Data**

**9/29/2014 KAP**

On September 29, 2014, one (1) trip blank, six (6) groundwater field samples, one (1) field sample with additional volume for MS/MSD, one (1) field duplicate and (1) equipment rinsate samples were shipped to the KAP Technologies laboratory for TCL VOC analysis. Refer to Table 2a below.

**Table 2a**  
**Sample Dispatch Data**  
**September 29, 2014**

TR Number	Airbill No.	No. and Type of Sample			Date/Time Shipped	
2-092914-191401-0001	8996 6538 0599	1	Trip Blank	VOCs	9/29/2014	20:24
		6	Field Samples	VOCs		
		1	Field Sample with MS/MSD	VOCs		
		1	Field Duplicate	VOCs		
		1	Equipment Rinsate	VOCs		

**9/29/2014 DESA**

On September 29, 2014, six (6) groundwater samples, one (1) sample with additional volume for MS/MSD and one (1) field duplicate were shipped to the DESA laboratory for Pesticide analysis. Also, five (5) field samples, one (1) field sample with additional volume for MS/MSD, and one (1) field duplicate were shipped to DESA for Metals analysis. Refer to Table 2b below.

**Table 2b**  
**Sample Dispatch Data**  
**September 29, 2014**

TR Number	Airbill No.	No. and Type of Sample			Date/Time Shipped	
2-092914-194317-0002	Hand Carried by CTI	4	Field Sample	Pesticides	9/29/2014	21:00
		1	Field Sample with MS/MSD	Pesticides		
		1	Field Duplicate	Pesticides		
2-092914-195712-0003	Hand Carried by CTI	2	Field Sample	Pesticides		
		5	Field Sample	TAL Metals		
		1	Field Sample with MS/MSD	TAL Metals		
		1	Field Duplicate	TAL Metals		

**Table 2**  
**Sample Dispatch Data**

**9/30/2014 KAP**

On September 30, 2014, one (1) trip blank, seven (7) groundwater field samples, one (1) field duplicate and one (1) equipment rinsate samples were shipped to the KAP Technologies laboratory for VOC analysis. Also, one (1) groundwater field sample, one (1) field duplicate, one (1) field sample with additional volume for MS/MSD and one (1) equipment rinsate samples were shipped to the KAP Technologies laboratory for Herbicide analysis. Refer to Table 2c below.

**Table 2c**  
**Sample Dispatch Data**  
**September 30, 2014**

TR Number	Airbill No.	No. and Type of Sample			Date/Time Shipped	
2-093014-184224-0006	8996 6538 0706	1	Trip Blank	VOCs	9/30/2014	19:50
		7	Field Sample	VOCs		
		1	Field Duplicate	VOCs		
		1	Equipment Rinsate	VOCs		
		1	Equipment Rinsate	Herbicides		
2-093014-184224-0007	8996 6538 0691	1	Field Sample	Herbicides	9/30/2014	19:52
		1	Field Sample with MS/MSD	Herbicides		
		1	Field Duplicate	Herbicides		

**NOTE:** The Herbicide field sample submitted on Chain of Custody # 2-093014-184224-0007 (CLP sample # BBYF5) was cancelled by the SMO. Insufficient sample volume was submitted to the lab. The sample was recollected on 10/1/2014 and the Herbicide sample was resubmitted to the lab as CLP sample # BBYG6.

**9/30/2014 DESA**

On September 30, 2014, six (6) groundwater field samples, one (1) field duplicate and one (1) equipment rinsate were shipped to the DESA Laboratory for Pesticide analysis. Also, seven (7) groundwater field samples, one (1) field duplicate and one (1) equipment rinsate were shipped to the DESA Laboratory for metals analysis. Refer to Table 2d below.

**Table 2d**  
**Sample Dispatch Data**  
**September 30, 2014**

TR Number	Airbill No.	No. and Type of Sample			Date/Time Shipped	
2-093014-180231-0004	Hand Carried by CTI	4	Field Sample	Pesticides	9/30/2014	20:30
		1	Field Duplicate	Pesticides		
2-093014-181602-0005	Hand Carried by CTI	2	Field Sample	Pesticides	9/30/2014	20:30
		1	Equipment Rinsate	Pesticides		
		7	Field Sample	Metals		
		1	Field Duplicate	Metals		
		1	Equipment Rinsate	Metals		

**Table 2**  
**Sample Dispatch Data**

**10/1/2014 KAP**

On October 1, 2014, one (1) trip blank, three (3) groundwater field samples and one (1) equipment rinsate sample were shipped to the Mitkem Laboratory for VOC analysis. Also, one (1) groundwater field sample and one (1) equipment rinsate sample were shipped to the Mitkem Laboratory for Herbicide analysis. Refer to Table 2e below.

**Table 2e**  
**Sample Dispatch Data**  
**October 1, 2014**

TR Number	Airbill No.	No. and Type of Sample			Date/Time Shipped	
2-100114-173303-0008	8996 6538 0680	1	Trip Blank	VOCs	10/1/2014	17:21
		3	Field Sample	VOCs		
		1	Equipment Rinsate	VOCs		
		1	Field Sample	Herbicides		
		1	Equipment Rinsate	Herbicides		

**10/1/2014 DESA**

On October 1, 2014, three (3) groundwater field samples and one (1) equipment rinsate were shipped to the DESA Laboratory for Pesticide analysis. Also, three (3) groundwater field samples and one (1) equipment rinsate were shipped to the DESA Laboratory for metals analysis. Refer to Table 2f below.

**Table 2f**  
**Sample Dispatch Data**  
**October 1, 2014**

TR Number	Airbill No.	No. and Type of Sample			Date/Time Shipped	
2-100114-174221-0009	Hand Carried by CTI	3	Field Sample	Pesticides	10/1/2014	17:15
		1	Equipment Rinsate	Pesticides		
		3	Field Sample	TAL Metals		
		1	Equipment Rinsate	TAL Metals		

**Table 3**  
**Sampling Personnel**

<b>Name</b>	<b>Organization</b>	<b>Site Duties</b>
Phil Riley	CTI and Associates, Inc	Field Team Leader
Mark Turner	GWTT	Field Sampling Technician
Matt Matteson	CTI and Associates Inc.	Field Sampling Technician

**Table 4**  
**Sample Numbers and Collection Points**

Laboratory	Analyses	Sample Type	CLP Sample #	Sample Collection Point (SCP)
DESA	TAL Metals	Field Sample (Parent)	BBYE2	NUS-3S
		Field Duplicate	BBYE3	DUP-1 (Parent = BBYE2)
		Field Sample	BBYE4	NUS-2D
		Field Sample	BBYE5	MW-4BR
		Field Sample	BBYE6	GU
		Field Sample	BBYE7	MW-2S
		Field Sample	BBYE8	MW-2BR
		Field Sample + Lab QC	BBYE9	BF-4 + MS/MSD
		Field Sample (Parent)	BBYF3	QD
		Field Duplicate	BBYF4	DUP-2 (Parent = BBYF3)
		Field Sample	BBYF5	FU
		Field Sample	BBYF6	MW-7BR
		Field Sample	BBYF7	BF-2D
		Field Sample	BBYF8	MW-6BR
		Equipment Rinsate	BBYF9	ER-2
		Field Sample	BBYG0	BF-2
		Field Sample	BBYG2	MW-5BR
		Field Sample	BBYG3	MW-3S
		Field Sample	BBYG4	MW-3BR
		Equipment Rinse	BBYG5	ER-3
KAP	TCL Volatiles	Trip Blank	BBYE1	TB-1
		Field Sample (Parent)	BBYE2	NUS-3S
		Field Duplicate	BBYE3	DUP-1 (Parent = BBYE2)
		Field Sample	BBYE4	NUS-2D
		Field Sample	BBYE5	MW-4BR
		Field Sample	BBYE6	GU
		Field Sample	BBYE7	MW-2S
		Field Sample	BBYE8	MW-2BR
		Field Sample + Lab QC	BBYE9	BF-4 + MS/MSD
		Equipment Rinse	BBYF0	ER-1
		Trip Blank	BBYF1	TB-2
		Field Sample	BBYF2	MW-4S
		Field Sample (Parent)	BBYF3	QD
		Field Duplicate	BBYF4	DUP-2 (Parent = BBYF3)
		Field Sample	BBYF5	FU
		Field Sample	BBYF6	MW-7BR
		Field Sample	BBYF7	BF-2D
		Field Sample	BBYF8	MW-6BR
		Equipment Rinsate	BBYF9	ER-2
		Field Sample	BBYG0	BF-2
		Trip Blank	BBYG1	TB-3
		Field Sample	BBYG2	MW-5BR
		Field Sample	BBYG3	MW-3S
		Field Sample	BBYG4	MW-3BR
		Equipment Rinsate	BBYG5	ER-3

**Table 4**  
**Sample Numbers and Collection Points**

Laboratory	Analyses	Sample Type	CLP Sample #	Sample Collection Point (SCP)
DESA	PESTICIDES	Field Sample (Parent)	BBYE2	NUS-3S
		Field Duplicate	BBYE3	DUP-1 (Parent = BBYE2)
		Field Sample	BBYE4	NUS-2D
		Field Sample	BBYE5	MW-4BR
		Field Sample	BBYE6	GU
		Field Sample	BBYE7	MW-2S
		Field Sample	BBYE8	MW-2BR
		Field Sample + Lab QC	BBYE9	BF-4 + MS/MSD
		Field Sample (Parent)	BBYF3	QD
		Field Duplicate	BBYF4	DUP-2 (Parent = BBYF3)
		Field Sample	BBYF5	FU
		Field Sample	BBYF6	MW-7BR
		Field Sample	BBYF7	BF-2D
		Field Sample	BBYF8	MW-6BR
		Equipment Rinsate	BBYF9	ER-2
		Field Sample	BBYG0	BF-2
		Field Sample	BBYG2	MW-5BR
		Field Sample	BBYG3	MW-3S
		Field Sample	BBYG4	MW-3BR
		Equipment Rinse	BBYG5	ER-3
KAP	HERBICIDES	Field Sample (Parent & QC)	BBYF3	QD + MS/MSD
		Field Duplicate	BBYF4	DUP-2 (Parent = BBYF3)
		Field Sample (CANCELLED)	BBYF5	FU (SAMPLE CANCELLED)
		Equipment Rinse	BBYG5	ER-3
		Field Sample	BBYG6	FU RESAMPLE (Herbicides only)

**Appendix A**  
**Chain-of-Custody Documents**  
**September 2014 Sampling Event**

## USEPA CLP COC (LAB COPY)

DateShipped: 9/29/2014

CarrierName: FedEx

AirbillNo: 8996 6538 0599

## CHAIN OF CUSTODY RECORD

Case #: XXXXX

Cooler #: Q

No: 2-092914-191401-0001

Lab: KAP Technologies Inc

Lab Contact: Rao Alsakani

Lab Phone: 281-367-0065

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BBYE1	BBYE1	Blank/ M. Matteson	Grab	VOCs	A (HCl) (3)	TB-1	09/28/2014 08:00	
BBYE2	BBYE2	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	NUS-3S	09/28/2014 14:10	
BBYE3	BBYE3	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	DUP-1	09/28/2014 14:10	
BBYE4	BBYE4	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	NUS-2D	09/28/2014 16:31	
BBYE5	BBYE5	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	MW-4BR	09/29/2014 11:10	
BBYE6	BBYE6	Ground Water/ Mark Turner	Bladder Pump	VOCs	A (HCl) (3)	GU	09/29/2014 12:45	
BBYE7	BBYE7	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	MW-2S	09/29/2014 13:30	
BBYE8	BBYE8	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	MW-2BR	09/29/2014 15:40	
BBYE9	BBYE9	Ground Water/ Mark Turner	Bladder Pump	VOCs	A (HCl) (6)	BF-4	09/29/2014 13:55	
BBYF0	BBYF0	Blank/ Mark Turner	Bladder Pump	VOCs	A (HCl) (3)	ER-1	09/29/2014 14:30	

Sample(s) to be used for Lab QC: BBYE9 Tag A - Special Instructions: Please keep or dispose of the cooler.

Shipment for Case Complete? N

Case # not assigned, samples shipped per Adly Michael at EPA. Case # to be assigned on 9-30-2014.

Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	PhD/CTI	9/29/2014	Fed Ex	9/29/2014	

**USEPA**

DateShipped: 9/29/2014

CarrierName: CTI and Associates

AirbillNo:

**CHAIN OF CUSTODY RECORD**

Chemical Insecticide Corp./NJ

Contact Name: Phillip Riley

Contact Phone: 248 787 4057

**No: 2-092914-194317-0002**

Cooler #: 10

Lab: ERT/SERAS

Lab Phone: 732-321-4200

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	BBYE2	NUS-3S	BBYE2	C	Pesticides	Ground Water	9/28/2014	14:10	2	1 liter amber	4 C	N
	BBYE3	DUP-1	BBYE3	C	Pesticides	Ground Water	9/28/2014	14:10	2	1 liter amber	4 C	N
	BBYE4	NUS-2D	BBYE4	C	Pesticides	Ground Water	9/28/2014	16:31	2	1 liter amber	4 C	N
	BBYE9	BF-4	BBYE9	C	Pesticides	Ground Water	9/29/2014	13:55	4	1 liter amber	4 C	Y

Special Instructions: Please Return Cooler using enclosed airbill.

**SAMPLES TRANSFERRED FROM****CHAIN OF CUSTODY #**

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	<i>Phillip Riley</i> CTI	9/29/2014			

**No: 2-092914-195712-0003**

Cooler #: BB

Lab: ERT/SERAS

Lab Phone: 732-321-4200

[illegible]

SAMPLE # BBYE8 (METALS) HAS BEEN REMOVED FROM C.O.C.  
Special Instructions: Please return cooler using enclosed airbill SUBMITTED ON 9-29-14.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

[illegible]

**INCORRECT, WAS SUBMITTED WITH SAMPLES  
ON 9-29-14. BBYE8 (METALS) NOT INCLUDED. PR**

USEPA

DateShipped: 9/29/2014

CarrierName: CTI and Associates

AirbillNo:

## CHAIN OF CUSTODY RECORD

Chemical Insecticide Corp./NJ

Contact Name: Phillip Riley

Contact Phone: 248 787 4057

No: 2-092914-195712-0003

Cooler #: BB

Lab: ERT/SERAS

Lab Phone: 732-321-4200

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	BBYE2	NUS-3S	BBYE2	B	Metals	Ground Water	9/28/2014	14:10	1	18 oz Plastic	HNO3 pH<2	N
	BBYE3	DUP-1	BBYE3	B	Metals	Ground Water	9/28/2014	14:10	1	18 oz Plastic	HNO3 pH<2	N
	BBYE4	NUS-2D	BBYE4	B	Metals	Ground Water	9/28/2014	16:31	1	18 oz Plastic	HNO3 pH<2	N
	BBYE5	MW-4BR	BBYE5	B	Metals	Ground Water	9/29/2014	11:10	1	18 oz Plastic	HNO3 pH<2	N
	BBYE5	MW-4BR	BBYE5	C	Pesticides	Ground Water	9/29/2014	11:10	2	1 liter amber	4 C	N
	BBYE6	GU	BBYE6	B	Metals	Ground Water	9/29/2014	12:45	1	18 oz Plastic	HNO3 pH<2	N
	BBYE6	GU	BBYE6	C	Pesticides	Ground Water	9/29/2014	12:45	2	1 liter amber	4 C	N
	BBYE7	MW-2S	BBYE7	B	Metals	Ground Water	9/29/2014	13:30	1	18 oz Plastic	HNO3 pH<2	N
	BBYE7	MW-2S	BBYE7	C	Pesticides	Ground Water	9/29/2014	13:30	2	1 liter amber	4 C	N
<b>VOID PR</b>	<b>BBYE8</b>	MW-2BR	<b>BBYE8</b>	B	Metals	Ground Water	9/29/2014	15:40	1	18 oz Plastic	HNO3 pH<2	N

**BBYE8 SUBMITTED ON C.O.C. # 2-093014-181602-0005**  
Special Instructions: Please return cooler using enclosed airbill

**SAMPLES TRANSFERRED FROM**  
**CHAIN OF CUSTODY #**

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	PL [Signature] CTI	9/29/14/2100			

**VOID PR**

Page 2 of 2 → OF INCORRECT COC. SEE NOTES ON pg 1 & 2 PR

**USEPA**

DateShipped: 9/29/2014

CarrierName: CTI and Associates

**Airbi#No:**

### CHAIN OF CUSTODY RECORD

Chemical Insecticide Corp./NJ

**Contact Name:** Phillip Riley

**Contact Phone: 248 787 4057**

**No: 2-092914-195712-0003**

Cooler #: BB

Lab: ERT/SERAS

Lab Phone: 732-321-4200

[illegible]

**Special Instructions:** Please return cooler using enclosed airbill

[illegible]

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	PLA/PLG CTI	9-29-14/2100			

**USEPA**

DateShipped: 9/30/2014

CarrierName: CTI and Associates

AirbillNo:

**CHAIN OF CUSTODY RECORD**

Chemical Insecticide Corp./NJ

Contact Name: Phillip Riley

Contact Phone: 248 787 4057

**No: 2-093014-180231-0004**

Cooler #: XX

Lab: ERT/SERAS

Lab Phone: 732-321-4200

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	BBYG0	BF-2		C	Pesticides	Ground Water	9/30/2014	15:35	2	1 liter amber	4 C	N
	BBYF3	QD		C	Pesticides	Ground Water	9/30/2014	10:10	2	1 liter amber	4 C	N
	BBYF4	DUP-2		C	Pesticides	Ground Water	9/30/2014	10:10	2	1 liter amber	4 C	N
	BBYF5	FU		C	Pesticides	Ground Water	9/30/2014	11:38	2	1 liter amber	4 C	N
	BBYF6	MW-7BR		C	Pesticides	Ground Water	9/30/2014	14:15	2	1 liter amber	4 C	N

Special Instructions:	<b>SAMPLES TRANSFERRED FROM</b>
	<b>CHAIN OF CUSTODY #</b>

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	PLP Riley CTI	9/30-14/2014			

## USEPA

Date Shipped: 9/30/2014

Carrier Name: CTI and Associates

Airbill No:

## CHAIN OF CUSTODY RECORD

Chemical Insecticide Corp./NJ

Contact Name: Phillip Riley

Contact Phone: 248 787 4057

No: 2-093014-181602-0005

Cooler #: ZE

Lab: ERT/SERAS

Lab Phone: 732-321-4200

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	BBYF9	ER-2		B	Metals	Blank	9/30/2014	15:04	1	18 oz Plastic	HNO3 pH<2	N
	BBYF9	ER-2		C	Pesticides	Blank	9/30/2014	15:04	2	1 liter amber	4 C	N
	BBYG0	BF-2		B	Metals	Ground Water	9/30/2014	15:35	1	18 oz Plastic	HNO3 pH<2	N
	BBYE8	MW-2BR		B	Metals	Ground Water	9/29/2014	15:40	1	18 oz Plastic	HNO3 pH<2	N
	BBYF5	FU		B	Metals	Ground Water	9/30/2014	11:38	1	18 oz Plastic	HNO3 pH<2	N
	BBYF6	MW-7BR		B	Metals	Ground Water	9/30/2014	14:15	1	18 oz Plastic	HNO3 pH<2	N
	BBYF7	BF-2D		B	Metals	Ground Water	9/30/2014	14:35	1	18 oz Plastic	HNO3 pH<2	N
	BBYF7	BF-2D		C	Pesticides	Ground Water	9/30/2014	14:35	2	1 liter amber	4 C	N
	BBYF8	MW-6BR		B	Metals	Ground Water	9/30/2014	12:45	1	18 oz Plastic	HNO3 pH<2	N
	BBYF8	MW-6BR		C	Pesticides	Ground Water	9/30/2014	12:45	2	1 liter amber	4 C	N
	BBYF3	QD	BBYF3	B	Metals	Ground Water	9/30/2014	10:10	1	18 oz Plastic	HNO3 pH<2	N
	BBYF4	DUP-2	BBYF4	B	Metals	Ground Water	9/30/2014	10:10	1	18 oz Plastic	HNO3 pH<2	N

Special Instructions: Please return cooler using enclosed airbill. Thanks.

SAMPLES TRANSFERRED FROM

Please note: Sample # BBYE8 METALS was not included with samples delivered on 9-29-14. It is included with these samples.

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	Phillip Riley CTI	9-30-14/2030			

## USEPA CLP COC (LAB COPY)

DateShipped: 9/30/2014

CarrierName: FedEx

AirbillNo: 8996 6538 0706

## CHAIN OF CUSTODY RECORD

Case #: 44719

Cooler #: ZZ

No: 2-093014-184224-0006

Lab: KAP Technologies Inc

Lab Contact: Rao Alsakani

Lab Phone: 281-367-0065


Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BBYF9		Blank/ Mark Turner	Bladder Pump	VOCs, HERB	A (HCl), D (4 C) (5)	ER-2	09/30/2014 15:04	
BBYG0		Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	BF-2	09/30/2014 15:35	
BBYF1		Blank/ Mark Turner	Grab	VOCs	A (HCl) (3)	TB-2	09/30/2014 07:00	
BBYF2		Ground Water/ M. Matteson	BAILER	VOCs	A (HCl) (3)	MW-4S	09/30/2014 08:04	
BBYF5		Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	FU	09/30/2014 11:38	
BBYF6		Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	MW-7BR	09/30/2014 14:15	
BBYF7		Ground Water/ Mark Turner	Bladder Pump	VOCs	A (HCl) (3)	BF-2D	09/30/2014 14:35	
BBYF8		Ground Water/ Mark Turner	Bladder Pump	VOCs	A (HCl) (3)	MW-6BR	09/30/2014 12:45	
BBYF3	BBYF3	Ground Water/ Mark Turner	Bladder Pump	VOCs	A (HCl) (3)	QD	09/30/2014 10:10	
BBYF4	BBYF4	Ground Water/ Mark Turner	Bladder Pump	VOCs	A (HCl) (3)	DUP-2	09/30/2014 10:10	

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Sample(s) to be used for Lab QC: BBYF9 Tag D - Special Instructions: Please return cooler using enclosed airbill. Thanks.

Analysis Key: HERB=Herbicides

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	 CTI	9-30-14/2014	Fed Ex	9-30-14/2014	

## USEPA CLP COC (LAB COPY)

DateShipped: 9/30/2014

CarrierName: FedEx

AirbillNo: 8996 6538 0691

## CHAIN OF CUSTODY RECORD

Case #: 44719

Cooler #: 461

No: 2-093014-184224-0007

Lab: KAP Technologies Inc

Lab Contact: Rao Alsakani

Lab Phone: 281-367-0065

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BBYF3	BBYF3	Ground Water/ Mark Turner	Bladder Pump	HERB	D (4 C) (4)	QD	09/30/2014 10:10	
BBYF4	BBYF4	Ground Water/ Mark Turner	Bladder Pump	HERB	D (4 C) (2)	DUP-2	09/30/2014 10:10	
BBYF5	BBYF5	Ground Water/ M. Matteson	Bladder Pump	HERB	D (4 C) (2)	FU	09/30/2014 11:38	

Sample(s) to be used for Lab QC: BBYF3 Tag D - Special Instructions: Please return cooler using enclosed airbill. Thanks.

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: HERB=Herbicides

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	PLEPP/ly CT1	9-30/14/2000	Fed ex	9-30-14/2000	

## USEPA CLP COC (LAB COPY)

DateShipped: 10/1/2014

CarrierName: FedEx

AirbillNo: 8996 6538 0680

## CHAIN OF CUSTODY RECORD

Case #: 44719

Cooler #: ZA

No: 2-100114-173303-0008

Lab: KAP Technologies Inc

Lab Contact: Rao Alsakani

Lab Phone: 281-367-0065

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BBYG1	BBYG1	Blank/ M. Matteson	Grab	VOCs	A (HCl) (3)	TB-3	10/01/2014 06:30	
BBYG2	BBYG2	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	MW-5BR	10/01/2014 09:35	
BBYG3	BBYG3	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	MW-3S	10/01/2014 13:50	
BBYG4	BBYG4	Ground Water/ M. Matteson	Bladder Pump	VOCs	A (HCl) (3)	MW-3BR	09/30/2014 12:25	
BBYG5	BBYG5	Blank/ M. Matteson	Bladder Pump	VOCs, HERB	A (HCl), D (4 C) (5)	ER-3	10/01/2014 14:45	
BBYG6	BBYG6	Ground Water/ M. Matteson	Bladder Pump	HERB	D (4 C) (2)	FU Resample	10/01/2014 16:35	


Special Instructions: Please return cooler using enclosed airbill. Thanks

Shipment for Case Complete? Y

Case is complete.

Samples Transferred From Chain of Custody #

Analysis Key: HERB=Herbicides

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES		10-1-14/1930	FedEx	10-1-14/1930	

## USEPA

DateShipped: 10/1/2014

CarrierName: CTI and Associates

AirbillNo:

## CHAIN OF CUSTODY RECORD

Chemical Insecticide Corp./NJ

Contact Name: Phillip Riley

Contact Phone: 248 787 4057

No: 2-100114-174221-0009

Cooler #: 22

Lab: ERT/SERAS

Lab Phone: 732-321-4200

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	BBYG2	MW-5BR		B	Metals	Ground Water	10/1/2014	09:35	1	18 oz Plastic	HNO3 pH<2	N
	BBYG2	MW-5BR		C	Pesticides	Ground Water	10/1/2014	09:35	2	1 liter amber	4 C	N
	BBYG3	MW-3S		B	Metals	Ground Water	10/1/2014	13:50	1	18 oz Plastic	HNO3 pH<2	N
	BBYG3	MW-3S		C	Pesticides	Ground Water	10/1/2014	13:50	2	1 liter amber	4 C	N
	BBYG4	MW-3BR		B	Metals	Ground Water	9/30/2014	12:25	1	18 oz Plastic	HNO3 pH<2	N
	BBYG4	MW-3BR		C	Pesticides	Ground Water	9/30/2014	12:25	2	1 liter amber	4 C	N
	BBYG5	ER-3		B	Metals	Blank	10/1/2014	14:45	1	18 oz Plastic	HNO3 pH<2	N
	BBYG5	ER-3		C	Pesticides	Blank	10/1/2014	14:45	2	1 liter amber	4 C	N

Special Instructions: Please return cooler using enclosed airbill. Thanks.

Case is complete

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	<i>Phillip Riley</i> CTI	10-1-14/1945			

**Appendix B**  
**FedEx Airbills**  
**September 2014 Sampling Event**

**1 From** *Please print and press hard.*

Date **9-29-14** Sender's FedEx Account Number **1150-9876-4**  
 Sender's Name **JACQUELINE FIELDS** Phone **(248) 486-5100**  
 Company **CTI AND ASSOCIATES INC**  
 Address **51331 PONTIAC TRL**  
 City **WIXOM** State **MI** ZIP **48393-2046**

**2 Your Internal Billing Reference**

First 24 characters will appear on invoice **1135010003-202**

**3 To**

Recipient's Name **SAMPLE RECEIVING** Phone **(281) 367-0065**  
 Company **KAP TECHNOLOGIES**  
 Address **9391 GROGANS MILL RD**  
 We cannot deliver to P.O. boxes or P.O. ZIP codes.  
 Address **THE WOODLANDS** State **TX** ZIP **77380**  
 Use this line for the HOLD location address or for continuation of your shipping address.

**HOLD Weekday** FedEx location address REQUIRED FedEx First Overnight  
**HOLD Saturday** FedEx location address REQUIRED FedEx Priority Overnight and FedEx 2Day to select locations

0451505929

**4 Express Package Service**

\* To most locations.

**Packages up to 150 lbs.**  
 For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

**Next Business Day**

- ☐ **FedEx First Overnight**  
 Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☒ **FedEx Priority Overnight**  
 Next business morning. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☐ **FedEx Standard Overnight**  
 Next business afternoon. \* Saturday Delivery NOT available.

**2 or 3 Business Days**

- ☐ **FedEx 2Day A.M.**  
 Second business morning. \* Saturday Delivery NOT available.  
☐ **FedEx 2Day**  
 Second business afternoon. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☐ **FedEx Express Saver**  
 Third business day. \* Saturday Delivery NOT available.

**5 Packaging** \* Declared value limit \$500.

- ☐ FedEx Envelope\* ☐ FedEx Pak\* ☐ FedEx Box ☐ FedEx Tube ☒ Other

**6 Special Handling and Delivery Signature Options**

- ☐ **SATURDAY Delivery**  
 FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver  
☐ **No Signature Required**  
 Packages may be left without obtaining a signature for delivery.  
☐ **Direct Signature**  
 Someone at recipient's address may sign for delivery. *Fee applies.*  
☐ **Indirect Signature**  
 If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

**Does this shipment contain dangerous goods?**

- ☒ No ☐ Yes As per attached Shippers Declaration ☐ Yes Shipper's Declaration not required ☐ Dry Ice Dry Ice, 3, UN 1845 kg  
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

**7 Payment Bill to:**

- ☒ **Sender** Enter FedEx Acct. No. or Credit Card No. below. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages Total Weight Total Declared Value\*

lbs. \$ 00

Your liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

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611

**FedEx**

80 RARITAN CENTER PARKWAY  
 Edison, NJ 08837

Location: LDJA  
 Device ID: LDJA-POS3  
 Employee: 399426  
 Transaction: 840106962529

**PRIORITY OVERNIGHT**  
 899665380599 19.60 lb (S) 134.56

Scheduled Delivery Date 09/30/2014

Shipment subtotal: 134.56

Total Due: 134.56

FedEx Account: 134.56

\*\*\*\*\*8764

H = Weight entered manually  
 S = Weight read from scale  
 T = Taxable item

Subject to additional charges. See FedEx Service Guide at fedex.com for details. All merchandise sales final.

Visit us at: [fedex.com](http://fedex.com)  
 Or call 1.800.GoFedEx  
 1.800.463.3339

September 29, 2014 8:24:14 PM

**FedEx** NEW Package  
Express US Airbill

FedEx Tracking Number 8996 6538 0706

MUR4

22

Form ID No 0215

1 From *Please print and press hard.*  
Date 9/30/2014 Sender's FedEx Account Number 1150-9876-4  
Sender's Name JACQUELINE FIELDS Phone (248) 486-5100  
Company CTI AND ASSOCIATES INC  
Address 51331 PONTIAC TRL  
City WIXOM State MI ZIP 48393-2046

2 Your Internal Billing Reference 1135610003-202

3 To Recipient's Name SAMPLE RECEIVING Phone 281,367 0065  
Company KAP TECHNOLOGIES  
Address 9391 GROGANS MILL RD  
We cannot deliver to PO, boxes or PO ZIP codes.  
Address THE WOODLANDS State TX ZIP 77380  
Use this line for the HOLD location address or for continuation of your shipping address.

0451505929

4 Express Package Service \*To most locations. Packages up to 150 lbs. For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

**Next Business Day**  
☐ FedEx First Overnight  
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☒ FedEx Priority Overnight  
Next business morning. \* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☐ FedEx Standard Overnight  
Next business afternoon. \* Saturday Delivery NOT available.

**2 or 3 Business Days**  
☐ FedEx 2Day A.M.  
Second business morning. \* Saturday Delivery NOT available.  
☐ FedEx 2Day  
Second business afternoon. \* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
☐ FedEx Express Saver  
Third business day. \* Saturday Delivery NOT available.

5 Packaging \*Declared value limit \$500.  
☐ FedEx Envelope\* ☐ FedEx Pak\* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options  
☐ SATURDAY Delivery  
FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.  
☐ No Signature Required  
Package may be left without a signature for delivery.  
☐ Direct Signature  
Someone at the shipper's address may sign for delivery. Fee applies.  
☐ Indirect Signature  
If one is available at recipient's address, someone at a shipping address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?  
☒ No ☐ Yes As per attached Shipper's Declaration ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 X kg  
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

7 Payment Bill to:  
☒ Sender Account in Section 7 (FedEx bill) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check  
FedEx Acct No. Credit Card No.

Total Packages 1 Total Weight 35 lbs. \$ 187.15 Total Declared Value\*

Your liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

611

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**FedEx**

80 RARITAN CENTER PARKWAY  
Edison, NJ 08837

Location: LDJA  
Device ID: LDJA-POS3  
Employee: 399426  
Transaction: 840107077547

PRIORITY OVERNIGHT  
899665380706 32.25 lb (S) 187.15

Scheduled Delivery Date 10/01/2014

Shipment subtotal: 187.15

Total Due: 187.15  
FedEx Account: \*\*\*\*\*8764

H = Weight entered manually  
S = Weight read from scale  
T = Taxable item

Subject to additional charges. See FedEx Service Guide at [fedex.com](http://fedex.com) for details. All merchandise sales final.

Visit us at: [fedex.com](http://fedex.com)  
Or call 1.800.GoFedEx  
1.800.463.3339

September 30, 2014 7:50:05 PM

**1 From** Please print and press hard.  
Date 9-30-14 Sender's FedEx Account Number 1150-9876-4  
Sender's Name JACQUELINE FIELDS Phone 248 486-5100  
Company CTI AND ASSOCIATES INC  
Address 51331 PONTIAC TRL  
City WIXOM State MI ZIP 48393-2046

**2 Your Internal Billing Reference**  
First 24 characters will appear on invoice.

**3 To**  
Recipient's Name SAMPLE RECEIVING Phone 281 3670065  
Company KAP TECHNOLOGIES  
Address 9391 GROGAN'S MILL RD.  
We cannot deliver to P.O. boxes or P.O. ZIP codes.  
Address THE WOODLANDS State TX ZIP 77380  
City THE WOODLANDS State TX ZIP 77380

0451505929

**4 Express Package Service** \*To most locations. Packages up to 150 lbs. For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

**Next Business Day**  
☐ FedEx First Overnight  
☒ FedEx Priority Overnight  
☐ FedEx Standard Overnight

**2 or 3 Business Days**  
☐ NEW FedEx 2Day A.M.  
☐ FedEx 2Day  
☐ FedEx Express Saver

**5 Packaging** \*Declared value limit \$500.  
☐ FedEx Envelope\* ☐ FedEx Pak\* ☐ FedEx Box ☐ FedEx Tube ☒ Other

**6 Special Handling and Delivery Signature Options**  
☐ SATURDAY Delivery  
☐ No Signature Required  
☐ Direct Signature  
☐ Indirect Signature  
☒ No  
☐ Yes  
☐ Yes  
☐ Yes  
☐ Dry Ice  
☐ Cargo Aircraft Only

**7 Payment Bill to:**  
Enter FedEx Acct. No. or Credit Card No. below.  
☒ Sender  
☐ Recipient  
☐ Third Party  
☐ Credit Card  
☐ Cash/Check

Total Packages Total Weight Total Declared Value\*

Our liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms of first carrier liability.

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80 RARITAN CENTER PARKWAY  
Edison, NJ 08837

Location: LDJA  
Device ID: LDJA-POS3  
Employee: 399426  
Transaction: 840107077917

PRIORITY OVERNIGHT  
899665380691 40.75 lb (S) 219.78  
Scheduled Delivery Date 10/01/2014  
Shipment subtotal: 219.78  
Total Due: 219.78  
FedEx Account: 219.78  
\*\*\*\*\*8764

H = Weight entered manually  
S = Weight read from scale  
T = Taxable item

Subject to additional charges. See FedEx Service Guide at fedex.com for details. All merchandise sales final.

Visit us at: fedex.com  
Or call 1.800.GoFedEx  
1.800.463.3339

September 30, 2014 7:52:11 PM

**1 From** Please print and press hard.  
**Date** 10-1-14 **Sender's FedEx Account Number** 1150-9876-4  
**Sender's Name** JACQUELINE FIELDS **Phone** (248) 486-5100  
**Company** CTI AND ASSOCIATES INC  
**Address** 51331 PONTIAC TRL  
**City** WIXOM **State** MI **ZIP** 48393-2046

**2 Your Internal Billing Reference** 1135010003-202

**3 To**  
**Recipient's Name** SAMPLE RECEIVING **Phone** 281-367-0065  
**Company** KAP TECHNOLOGIES  
**Address** 9391 GROGAN'S MILL RD.  
**Address** SUITE A2  
**City** THE WOODLANDS **State** TX **ZIP** 77380  
**0451505929**

**4 Express Package Service** \*To most locations.  
**Next Business Day**  
☐ FedEx First Overnight  
☒ FedEx Priority Overnight  
☐ FedEx Standard Overnight  
**2nd Business Day**  
☐ NLW FedEx 2Day A.M.  
☐ FedEx 2Day  
☐ FedEx Express Saver

**5 Packaging** \*Declared value limit \$500.  
☐ FedEx Envelope\* ☐ FedEx Pak\* ☐ FedEx Box ☐ FedEx Tube ☒ Other

**6 Special Handling and Delivery Signature Options**  
☐ SATURDAY Delivery  
☐ No Signature Required  
☒ Direct Signature  
☐ Indirect Signature  
**Does this shipment contain dangerous goods?**  
☒ No ☐ Yes ☐ Yes ☐ Dry Ice  
☐ Cargo Aircraft Only

**7 Payment Bill to:**  
☒ Sender ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check  
**Total Packages** **Total Weight** **Total Declared Value\***

**The FedEx US Airbill has changed. See Section 4.**  
**For shipments over 150 lbs., order the new FedEx Express Freight US Airbill.**

**611**  
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80 RARITAN CENTER PKWY  
 Edison, NJ 08837

**Location:** LDJA  
**Device ID:** LDJA-P0S02  
**Employee:** 180234  
**Transaction:** 840107188079

**PRIORITY OVERNIGHT**  
 899665380680 37.35 lb (S) 206.33

**Scheduled Delivery Date 10/02/2014**  
**Shipment subtotal:** 206.33

**Total Due:** 206.33  
**FedEx Account:** \*\*\*\*\*8764

H = Weight entered manually  
 S = Weight read from scale  
 T = Taxable item

Subject to additional charges. See FedEx Service Guide at fedex.com for details. All merchandise sales final.

Visit us at: [fedex.com](http://fedex.com)  
 Or call 1.800.GoFedEx  
 1.800.463.3339

October 1, 2014 7:21:16 PM

**Appendix C**  
**Field Parameters**  
**September 2014 Sampling Event**

**Appendix C**  
**Field Parameter Measurements - September 2014 Sampling Event**  
**Chemical Insecticide Corporation - Edison, New Jersey**  
**Operable Unit 4 (OU4) - Groundwater**

Monitoring Well ID	Sampling Date	pH (s.u.)	Specific Conductance (uS/cm <sup>2</sup> )	Oxidation Reduction Potential (mv)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (°C)
BF-2	9/30/2014	6.24	392	-55	0.74	0.0	16.38
BF-2D	9/30/2014	6.58	427	-39	2.25	50.7	15.32
BF-4	9/29/2014	7.77	414	-77	7.24	0.0	19.21
FU	10/1/2014	6.38	572	174	1.11	0.0	18.23
GU	9/29/2014	6.69	556	-9	0.97	2.7	19.24
MW-2BR	9/29/2014	8.92	370	16	1.07	27.1	16.69
MW-2S	9/29/2014	6.33	522	0	0.94	3.1	11.49
MW-3BR	10/1/2014	7.08	260	-77	1.04	19.2	16.61
MW-3S	10/1/2014	4.17	1300	333	0.92	20.5	19.06
MW-4BR	9/29/2014	6.29	450	-47	1.05	26.6	17.31
MW-4S	9/30/2014	*	*	*	*	*	*
MW-5BR	10/1/2014	6.60	570	-75	1.03	27.5	15.29
MW-6BR	9/30/2014	7.61	274	-71	5.47	32.6	17.85
MW-7BR	9/30/2014	6.17	436	166	0.89	0.0	18.74
NUS-2D	9/28/2014	7.06	244	-67	1.56	0.0	16.12
NUS-3S	9/28/2014	4.85	116	320	3.91	5.7	18.65
QD	9/30/2014	6.86	286	122	0.41	1.7	15.65

**Notes:**

s.u. = standard units

uS/cm<sup>2</sup> = micro siemens per square centimeter

°C = degrees celcius

mg/L = milligrams per liter

mv = milli volt

NTU = Nephelometric Turbidity Units

\* = MW-4S had insufficient water to perform low flow sampling, a grab sample was collected for VOCs only.

## Appendix D

### Equipment Calibration Logs



Geotechnical,  
Environmental  
and Construction  
Materials Engineers

CTI and Associates, Inc.

## EQUIPMENT CALIBRATION WORKSHEET

Dates:

9-29-10-1-14

Project Name:

Chemical Insecticide Corporation

Weather:

Varies

Instrument  
I. D.

21127

Project Number:

1135010003-202

Scientist/  
Engineer:

P.R./M.M.

### Multi - Parameter Instrument Calibration

Date / Time	pH			ORP	Specific Conductivity	DO		Barometric Pressure	Comments
	4	7	10		( $\mu\text{S}/\text{cm}^2$ )	100%	mg/L	IN mmHg	
9/29/14	4.00	7.00	10.00	240	0.718	✓	9.54	29.99"	
9/30/14	4.0	7.00	10.00	240	0.718	✓	9.82	29.97"	
Lot No.	*	3AK280	3AK118	7065	*				

### Turbidimeter Calibration

Date/ Time	<0.1*	20	100	800
9-29-14	0.0	—	—	800
9-30-14	0.0	—	—	800
				Horiba 201046-4

\* Antocal Solution Lot#

C467288

TURBIDITY STANDARD 800 NTU  
LOT# 201046-4

718  $\mu\text{S}$  CONDUCTIVITY LOT# = PINE 4AH230



Geotechnical,  
Environmental  
and Construction  
Materials Engineers

CTI and Associates, Inc.

## EQUIPMENT CALIBRATION WORKSHEET

Dates:

9-28-14 — 10-1-14

Project Name:

Chemical Insecticide Corporation

Weather:

VARIES

Instrument  
I. D.

29333-

Project Number:

1135010003-202

Scientist/  
Engineer:

PR/M.M.

### Multi - Parameter Instrument Calibration

Date / Time	pH			ORP	Specific Conductivity	DO		Barometric Pressure	Comments
	4	7	10			100%	mg/L	IN mmHg	
9-28-14 1130	*4.00	7.00	10.00	240 mV	718 (µs/cm²)	✓	10.49	30.14"	
9-29-14 0800	4.00	7.00	10.00	240	0.718	✓	9.51	29.99"	
9-30-14	4.00	7.00	10.00	240	0.718	✓	7.88	29.97"	
10-1-14	4.00	7.00	10.00	240	0.718	✓	10.32	30.02"	
Lot No.	*	3AK250	3AK118	7065	*4AH230				

### Turbidimeter Calibration

Date/ Time	<0.1 *	20	100	800
9-28-14 1130	0.0	—	—	800
9-29-14	0.0	—	—	800
9-30-14	0.0	—	—	800
10-1-14	0.0	—	—	800
				Horiba 201046-1

\* AUTOCAL SOLUTION LOT # =

C467288

TURBIDITY STANDARD 800 NTU  
LOT # 201046-4

718 µS CONDUCTIVITY LOT # = PINE 4AH230

## SAFETY MEETING FORM

Date: 9-28-14

Start Time: AT SITE 1030

### Issues Discussed

Protective Clothing: LEVEL D.

Chemical Hazards: NONE EXCEPT LOW LEVEL VOCs IN G.W.

Physical Hazards: SLIPS, TRIPS, FALLS, TICKS, SNAKES

Emergency Procedures: CALL 911

Hospitals:

Special Equipment: G.W. SAMPLING EQUIP.

### Miscellaneous

ATTENDEES	
Print Name	Signature
PHIL RILEY	Phil Riley
Matt Matteson	Matt Matteson

Meeting Conducted by: P. RILEY PR.

## SAFETY MEETING FORM

Date: 9-29-14

Start Time: 0735 (MTG)

### Issues Discussed

Protective Clothing: LEVEL "D"

Chemical Hazards: LOW LEVEL VOLCS IN GROUNDWATER

Physical Hazards: SLIPS, TRIPS, FALLS, INSECTS, TRAPPIE




Emergency Procedures: CALL 911

Hospitals: R. JOHNSON HOSPITAL

Special Equipment: G.W. SAMPLING

Miscellaneous BE SAFE THINK!

### ATTENDEES

Print Name	Signature
PHIL RILEY	
Matt Matteson	
MAM TUNNEN	

Meeting Conducted by: P. RILEY

## SAFETY MEETING FORM

Date: 9-30-14

Start Time: 0800

### Issues Discussed

Protective Clothing: Level D PPE

Chemical Hazards: VOC's

Physical Hazards: slips, trips, falls, insects



Emergency Procedures: Call 911

Hospitals: Robert Johnson

Special Equipment: Groundwater Sampling Equipment

Miscellaneous

### ATTENDEES

Print Name	Signature
Matt Matteson	
Nan Turner	

Meeting Conducted by:

M. Matteson

## SAFETY MEETING FORM

Date: 10-1-14

Start Time: 0820

### Issues Discussed

Protective Clothing: Level D PPE

Chemical Hazards: VOC's

Physical Hazards: Slips, trips, Falls, wet grass, TRAFFIC


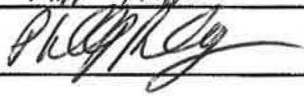
Emergency Procedures: Call 911

Hospitals: Robert Johnson

Special Equipment: Water Sampling Equipment

Miscellaneous: Watch out for thunderstorms

### ATTENDEES

Print Name	Signature
Matt Matteson	
PHIL RILEY	


Meeting Conducted by:

M. Matteson


Appendix E

Daily Quality Control Reports


## DAILY QUALITY CONTROL REPORT

Site: Chemical Insecticide Corporation Superfund Site		Project Manager: R. Stenson		Quality Control: D. Lonergan		Page No.: <u>1</u> of <u>1</u>	
Date: 9-28-2014		Week No.: 1		Hours on Site: 7.0 / 3.0 offsite		Work Order & Task: W912DQ-11-D-3001	
Written By: Phillip Riley				Reviewed By: R. Stenson			
Weather/Temperature: 70 <sup>0</sup> - 84 <sup>0</sup> sunny							
Location of Work: Edison, New Jersey							
Project Personnel: Phillip Riley, Matt Matteson				Equipment:		Visitors/Affiliation:	
• Field Team Leader: Phillip Riley				QED Electronic interface probes		No visitors	
• CQC Manager: Drew Lonergan				Horiba Water Quality Meter			
• SSHO: Phillip Riley				Low flow bladder pumps & controller			
• Others: NONE							
Work Performed by CTI:							
<p>Traveled to Edison. Upon arrival at the site, conducted tailgate Health and Safety meeting. Performed calibration of the Horiba WQM, completed calibration form. Collected groundwater samples from wells NUS-3S and NUS-2D using the low flow method. Collected field duplicate DUP-1 from well NUS-3S. All field parameters were within project specifications prior to sampling. The samples were placed on ice for shipment on 9-29-14. The lab assignment for the VOC and Herbicide analysis has not been issued by the EPA CLP program.</p>							
Safety Observations/Violations/Comments:							
NONE							
Calibration of Field Equipment (See Calibration Logs in File):							
Calibrated 1 Horiba water quality meter, all parameters calibrated within specified tolerances.							
Certification:							
<p>I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specification, except as may be noted above.</p> <p></p> <p>Signature: _____</p>							


# DAILY QUALITY CONTROL REPORT

Site: Chemical Insecticide Corporation Superfund Site		Project Manager: R. Stenson		Quality Control: D. Lonergan		Page No.: <u>1</u> of <u>1</u>	
Date: 9-29-2014		Week No.: 1		Hours on Site: M. Matteson - 10.0 / 4.0 offsite P. Riley - 5.0 / 9.0 offsite M. Turner - 8.0		Work Order & Task: W912DQ-11-D-3001	
Written By: Phillip Riley				Reviewed By: R. Stenson			
Weather/Temperature: 70 <sup>0</sup> - 84 <sup>0</sup> sunny							
Location of Work: Edison, New Jersey							
Project Personnel: Phillip Riley, Matt Matteson				Equipment:		Visitors/Affiliation:	
• Field Team Leader: Phillip Riley				QED Electronic interface probes		No visitors	
• CQC Manager: Drew Lonergan				Horiba Water Quality Meter			
• SSHO: Phillip Riley				Low flow bladder pumps & controller			
• Others: NONE				MiniRae PID			
Work Performed by CTI:							
<p>Upon arrival at the site, conducted tailgate Health and Safety meeting. Performed calibration of the Horiba WQMs and completed calibration forms. Conducted a complete round of water level measurements and well inspections. Inspection forms completed. Collected groundwater samples from wells MW-4BR, MW-2BR, MW-2S, BF-4 and GU. MS/MSD sample volume was collected from well BF-4. All field parameters were within project specifications prior to sampling. Monitoring Well MW-4S contained insufficient water column for low flow sampling. The well was bailed dry and will be sampled with the bailer for VOCs on 9-30-2014.</p> <p>The Pesticide and Metals samples were hand carried to the DESA laboratory in Edison, NJ.</p> <p>The lab assignment for the VOC and Herbicide analysis has not been formally issued by the EPA CLP program. As directed by Mr. Adly Michael of the EPA, the VOC samples were shipped to the KAP laboratory in The Woodlands, TX. No Herbicide samples were collected today.</p>							
Safety Observations/Violations/Comments:							
NONE							
Calibration of Field Equipment (See Calibration Logs in File):							
Calibrated 2 Horiba water quality meters and the PID. All parameters calibrated within specified tolerances.							
Certification:							
<p>I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specification, except as may be noted above.</p> <p></p> <p>Signature: _____</p>							

# DAILY QUALITY CONTROL REPORT

Site: Chemical Insecticide Corporation Superfund Site		Project Manager: R. Stenson		Quality Control: D. Lonergan		Page No.: <u>1</u> of <u>1</u>	
Date: 9-30-2014		Week No.: 1		Hours on Site: M. Matteson - 10.0 / 3.0 offsite P. Riley - 12.0 offsite M. Turner - 8.0 onsite		Work Order & Task: W912DQ-11-D-3001	
Written By: Phillip Riley				Reviewed By: R. Stenson			
Weather/Temperature: 65° - 78° cloudy							
Location of Work: Edison, New Jersey							
Project Personnel: Phillip Riley, Matt Matteson, Mark Turner				Equipment:		Visitors/Affiliation:	
• Field Team Leader: Phillip Riley				QED Electronic interface probes		No visitors	
• CQC Manager: Drew Lonergan				Horiba Water Quality Meter			
• SSHO: Phillip Riley				Low flow bladder pumps & controller			
• Others: NONE							
Work Performed by CTI:							
<p>Upon arrival at the site, conducted tailgate Health and Safety meeting. Performed calibration of the Horiba WQMs and completed calibration forms. Returned the rental trailer to the U haul in Edison.</p> <p>Monitoring well MW-4S was sampled with a bailer for VOCs only.</p> <p>Collected groundwater samples from wells QD, FU, 6BR, 7BR, BF-2D and BF-2 using the low flow method.</p> <p>MS/MSD sample volume for Herbicides only was collected from well QD. A complete set of duplicate samples (DUP-2) was collected at QD.</p> <p>All field parameters were within project specifications prior to sampling.</p> <p>An equipment rinsate sample was collected from the bladder pump.</p> <p>Per USEPA DESA Greg Santacrose, 1 liter Pesticide sample containers will be decanted and 500 ml used for analysis and future 1 liter containers are to be filled with 500 ml for analysis to accommodate solid phase extraction procedure. Effect on sample results will be inconsequential. The Pesticide and Metals samples were hand carried to the DESA laboratory in Edison, NJ.</p> <p>The VOC and Herbicide samples were shipped to the KAP laboratory in The Woodlands, TX.</p>							
Safety Observations/Violations/Comments:							
NONE							
Calibration of Field Equipment (See Calibration Logs in File):							
Calibrated 2 Horiba water quality meters. All parameters calibrated within specified tolerances.							
Certification:							
<p>I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specification, except as may be noted above.</p> <p></p> <p>Signature: _____</p>							

# DAILY QUALITY CONTROL REPORT

Site: Chemical Insecticide Corporation Superfund Site		Project Manager: R. Stenson		Quality Control: D. Lonergan		Page No.: <u>1</u> of <u>1</u>	
Date: 10-1-2014		Week No.: 1		Hours on Site: M. Matteson - 10.0 / 3.0 offsite P. Riley - 10.0 offsite		Work Order & Task: W912DQ-01-D-3001	
Written By: Phillip Riley				Reviewed By: R. Stenson			
Weather/Temperature: 65° - 70° cloudy							
Location of Work: Edison, New Jersey							
Project Personnel: Phillip Riley, Matt Matteson				Equipment:		Visitors/Affiliation:	
• Field Team Leader: Phillip Riley				QED Electronic interface probes		No visitors	
• CQC Manager: Drew Lonergan				Horiba Water Quality Meter			
• SSHO: Phillip Riley				Low flow bladder pumps & controller			
• Others: NONE							
Work Performed by CTI:							
<p>Conducted tailgate Health and Safety meeting at the Hotel. Performed calibration of one Horiba WQM and completed the calibration form. Collected scheduled groundwater samples from wells MW-5BR, MW-3S and MW-3BR using the low flow method. Due to a sampling error, the Herbicide sample bottles collected from well FU on 9-30-2014 were lacking sufficient volume. CTI returned to well FU and re-collected the Herbicide sample volume, following the low flow purge and sample protocol. All field parameters were within project specifications prior to sampling. An equipment rinsate sample was collected from the bladder pump prior to use at well FU. The Pesticide and Metals samples were hand carried to the DESA laboratory in Edison, NJ. The VOC and Herbicide samples were shipped to the KAP laboratory in The Woodlands, TX. Discussed the new DESA Pesticide sample volume requirement (500ml vs. 1 liter) with laboratory personnel. CTI was assured the pesticide results would not be qualified or affected despite DESA utilizing a new solid phase extraction method which requires only 500ml of sample volume. In the future, CTI will collect the Pesticide sample volume in 500ml glass amber bottles for analysis by DESA. The field sampling is complete. Will depart Edison on 10-2.</p>							
Safety Observations/Violations/Comments:							
NONE							
Calibration of Field Equipment (See Calibration Logs in File):							
Calibrated 1 Horiba water quality meter. All parameters calibrated within specified tolerances.							
Certification:							
<p>I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specification, except as may be noted above.</p> <p></p> <p>Signature: _____</p>							

Appendix F  
Data Validation Reports  
and  
Laboratory Analytical Results



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 2  
DESA/HWSB/HWSS  
2890, Woodbridge Avenue, Edison, NJ 08837

### EXECUTIVE NARRATIVE

**Case No. :** 44719

**Site:** Chemical Insecticide Corp.

**Number of Samples:** 20 (Water)

**Analysis:** TVOA

**SDG No.:** BBYE1

**Laboratory:** KAP

**Sampling dates:** 9/28/14-9/30/14

**Validation SOP:** HW-34 (Rev.3)

#### **QAPP:**

**Contractor:** CTI and Associates, Inc.

**Reference:** DCN CIC-031111-001

#### **SUMMARY OF DEFINITIONS:**

**Critical:** Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "R" rejected.

**Major:** A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified "J" estimated.

**Minor:** The level of uncertainty is acceptable. No significant bias in the data was observed.

#### **Critical Findings:**

None

#### **Major Findings:**

All samples have analytes that have been qualified "J", "J+" or "J-" except for samples BBYF6, BBYF7, BBYF7DL, BBYF8, BBYF9, BBYG0 and BBYG0DL.

#### **Minor Findings:**

None

#### **COMMENT:**

Compounds listed below have concentrations that are greater than the Remedial Goals in the associated samples:

**1,2-Dichloroethane** BBYF3, BBYF4, BBYF8 and BBYG0

**Vinyl Chloride** BBYF7DL and BBYG0

**Benzene** BBYF7 and BBYG0

**Trichloroethene** BBYF3, BBYF4 and BBYF6.

**Tetrachloroethene** BBYF6

**Reviewer Name(s):** Israel Okwuonu

**Approver's Signature:**

**Date:** 11/12/2014

**Name:** Narendra Kumar

**Affiliation:** USEPA/R2/HWSB/HWSS



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION 2**  
**DESA/HWSB/HWSS**  
**2890, Woodbridge Avenue, Edison, NJ 08837**

Data Qualifier Definitions (National Functional Guidelines)			
Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
<b>U</b>	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
<b>J</b>	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
<b>J+</b>	The result is an estimated quantity, but the result may be biased high.	The result is an estimated quantity, but the result may be biased high.	
<b>J-</b>	The result is an estimated quantity, but the result may be biased low.	The result is an estimated quantity, but the result may be biased low.	
<b>UJ</b>	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
<b>R</b>	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
<b>N</b>		The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".	
<b>NJ</b>		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
<b>C</b>		This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
<b>X</b>		This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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## DATA ASSESSMENT

### ANALYSIS: TVOA

The current SOP HW-34 (Revision 3) February 2013, USEPA Region II Data Validation SOP for Statement of Work SOM01.2 for evaluating Trace Volatile organic data has been applied. Data has been reviewed according to TDF specifications, the National Functional Guidelines Report and the CCS Semi- Automated Screening Results Report. Tentatively Identified Compounds (TICS) for VOA organic fraction is not validated.

#### 1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

#### 2. DEUTERATED MONITORING COMPOUNDS (DMCs)

All samples are spiked with DMC compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured DMC recovery concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

The following volatile samples have DMC/SMC recoveries above the upper limit of the criteria window. Detected compounds are qualified J+. Non-detected compounds are not qualified.

##### **1, 2-Dichloroethane-d4** BBYF2

1, 1,1-Trichloroethane, 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,2-Dibromoethane, 1, 2-Dichloroethane, Carbon tetrachloride, Methyl acetate, Methyl tert-butyl ether, Methylene chloride, Trichlorofluoromethane

##### **Chloroethane-d5** BBYE1, BBYE2, BBYE3, BBYE4, BBYE5, BBYE6, BBYE7, BBYE8, BBYE9, BBYF0, BBYF1, BBYF2, BBYF5, BBYF6

Bromomethane, Carbon disulfide, Chloroethane, Chloromethane, Dichlorodifluoromethane

The following trace volatile samples have one or more DMC/SMC recovery values less than the primary lower limit but greater than or equal to the expanded lower limit of the criteria window. Detected compounds are qualified J-. Non-detected compounds are qualified UJ.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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**1, 2-Dichlorobenzene-d4** BBYF4

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Chlorobenzene

**1,2-Dichloropropane-d6** BBYF4, BBYF4RE

1,2-Dichloropropane, Bromodichloromethane, Cyclohexane, Methylcyclohexane

**1,1,2,2-Tetrachloroethane-d2** BBYF4, BBYF4RE

1,1,2,2-Tetrachloroethane, 1,2-Dibromo-3-chloropropane

**1,1-Dichloroethene-d2** BBYF4RE

1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene

**trans-1,3-Dichloropropene-d4** BBYF4, BBYF4RE

1,1,2-Trichloroethane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene

**3. MATRIX SPIKE/ MATRIX SPIKE RECOVERY:**

MS/MSD data is generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other QC criteria for additional qualification of data.

Not applicable.

**4. BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the amount of contamination present in the QA blanks, the analytes are qualified as non-detects, "U". Qualifications were applied to the samples and analytes as shown below.

**A) Method blank contamination:**

The following trace volatile samples have analyte concentrations reported below the CRQL. The associated method blank concentration is less than the concentration criteria. Detected compounds are qualified U. Non-detected compounds are not qualified. Reported sample concentrations have been elevated to the CRQL.

**m,p-Xylene** BBYF7

**Bromomethane** BBYF5

**Toluene** BBYF7

**B) Field or rinse blank contamination:**

No additional qualification due to rinse blank contamination.



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**C) Trip blank contamination:**

No additional qualification due to trip blank contamination.

**D) Storage Blank associated with VOA samples only:**

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated storage blank has common contaminant analyte concentration less than 2x the concentration criteria. Detected compounds are qualified U. Non-detected compounds are not qualified. Reported sample concentrations have been elevated to the CRQL.

**Methylene chloride** BBYG0DL

**E) Tentatively Identified Compounds:**

Tentatively Identified Compounds (TICs) for VOA organic fraction are not validated.

**5. MASS SPECTROMETER TUNING:**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**6. CALIBRATION:**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. The response factor for the Target Compound List (TCL) must be  $\geq 0.05$ , and  $\geq 0.01$  for the poor performers in both the initial and continuing calibrations. A value  $< 0.05$ , or  $< 0.01$  for the poor performers indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound will be rejected "R".

No problems were found for this criterion.

**B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be  $\leq 30\%$  for all TCL analytes, and  $\leq 40\%$  for poor performers. %D must be  $\leq 30\%$  for all TCL analytes and  $\leq 40\%$  for the poor performers. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J". Non-detects are flagged "UJ" for %D value outside criteria only. If %RSD and %D grossly exceed QC criteria ( $>90\%$ ), non-detects data may be qualified "R". Qualifications were applied to the samples and analytes as shown below.

The following trace volatile samples are associated with an opening or closing CCV percent difference (%D) outside criteria. Detected compounds are qualified J. Non-detected compounds are qualified UJ.

**Bromoform**

BBYE1, BBYE2, BBYE3, BBYE4, BBYE5, BBYE6, BBYE7, BBYE8, BBYE9, BBYF0, BBYF1, BBYF2, BBYF3, VBLK07

**7. INTERNAL STANDARDS PERFORMANCE GC/MS:**

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must be in the range of 60% - 140 % of the associated continuing calibration internal standard area. The retention time of the internal standards must not vary more than  $\pm 20$  seconds from the associated continuing calibration standard. If the area count is greater than 140%, all positive results quantitated using that IS are qualified as estimated "J", and non-detects are not qualified. If the area count is less than 60% of the associated standard, all positive results for compounds quantitated with that IS are qualified as estimated "J" and all non-detects are qualified "R".

If an internal standard retention time varies by more than 20 seconds, the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**8. FIELD DUPLICATES:**

No problems were found for this criterion.

**9. COMPOUND IDENTIFICATION:**

**A) Trace Volatile Fractions:**

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the



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results to be a positive hit, the sample peak must be within  $\pm 0.06$  RRT units of the standard compound and have ion spectra which have a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications.

No problems were found for this criterion.

**10. CONTRACT PROBLEMS NON-COMPLIANCE:**

None

**11. FIELD DOCUMENTATION:**

No problems were identified.

**12. OTHER PROBLEMS:**

None

**13. Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable sample and analytes.**



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### EXECUTIVE NARRATIVE

**Case No. :** 44719

**Site:** Chemical Insecticide Corp.

**Number of Samples:** 5 (Water)

**Analysis:** TVOA, Herbicides (MA # 2081.5)

**SDG No.:**BBYG1

**Laboratory:** KAP

**Sampling dates:** 09/30/2014-10/01/2014

**Validation SOP:** HW34 (Rev3), HW17 (Rev3.1)

**QAPP:**

**Contractor:** CTI & Associates, Inc

**Reference:** CIC-031111-001

**SUMMARY OF DEFINITIONS:**

**Critical:** Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "R" rejected.

**Major:** A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified "J" estimated. "J+" and "J-" represent likely direction of the bias.

**Minor:** The level of uncertainty is acceptable. No significant bias in the data was observed.

**Critical Findings:**

None.

**Major Findings:**

**TVOA:** Samples BBYG1, BBYG3 and BBYG4 have analytes that have been qualified "J", "J+" or "J-".

**Minor Findings:**

None.

<b>COMMENTS:</b>	<b>TVOA:</b> Samples BBYG2 and BBYG2DL have analytes with concentrations greater than their Remediation Goal.
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**Reviewer Name(s):** Archana Mirle

**Approver's Signature:**

**Date:** 11/12/2014

**Name:** Narendra Kumar

**Affiliation:** USEPA/R2/HWSB/HWSS



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Data Qualifier Definitions (National Functional Guidelines)			
Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
<b>U</b>	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
<b>J</b>	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
<b>J+</b>	The result is an estimated quantity, but the result may be biased high.	The result is an estimated quantity, but the result may be biased high.	
<b>J-</b>	The result is an estimated quantity, but the result may be biased low.	The result is an estimated quantity, but the result may be biased low.	
<b>UJ</b>	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
<b>R</b>	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
<b>N</b>		The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".	
<b>NJ</b>		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
<b>C</b>		This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
<b>X</b>		This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.	



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## DATA ASSESSMENT

### ANALYSIS: TVOA

The current SOP HW-34 (Revision 3) February 2013, USEPA Region II Data Validation SOP for Statement of Work SOM01.2 for evaluating Trace Volatile organic data has been applied. Data has been reviewed according to TDF specifications, the National Functional Guidelines Report and the CCS Semi- Automated Screening Results Report. Tentatively Identified Compounds (TICs) for TVOA organic fraction is not validated.

#### 1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

#### 2. DEUTERATED MONITORING COMPOUNDS (DMC's):

All samples are spiked with DMC compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured DMC recovery concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

The following volatile samples have DMC/SMC recoveries above the upper limit of the criteria window. Detected compounds are qualified J+. Non-detected compounds are not qualified.

##### **Chloroethane-d5** BBYG5

Bromomethane, Carbon disulfide, Chloroethane, Chloromethane, Dichlorodifluoromethane

The following trace volatile samples have one or more DMC/SMC recovery values less than the primary lower limit but greater than or equal to the expanded lower limit of the criteria window. Detected compounds are qualified J-. Non-detected compounds are qualified UJ.

##### **1,1,2,2-Tetrachloroethane-d2** BBYG1

1,1,2,2-Tetrachloroethane, 1,2-Dibromo-3-chloropropane

##### **trans-1,3-Dichloropropene-d4** BBYG1, BBYG3, BBYG4

1,1,2-Trichloroethane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene

#### 3. MATRIX SPIKE/ MATRIX SPIKE RECOVERY:



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**MS/MSD data is generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other QC criteria for additional qualification of data.**

Not applicable.

**4. BLANK CONTAMINATION:**

**Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the amount of contamination present in the QA blanks, the analytes are qualified as non-detects, "U". Qualifications were applied to the samples and analytes as shown below.**

**A) Method blank contamination:**

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated method blank has common contaminant analyte concentration less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQL.

**Methylene chloride** BBYG2DL

**B) Field or rinse blank contamination:**

No problems were found for this criterion.

**C) Trip blank contamination:**

The following trace volatile samples have common contaminant analyte concentrations reported greater than 2x the CRQL and less than trip blank concentration. The associated trip blank has common contaminant analyte concentration greater than 2x the CRQL. Reported concentration of the analyte in the sample at the same concentration found in the trip blank and have been qualified U. Non-detected compounds are not qualified.

**Acetone** BBYG3

**D) Storage Blank associated with VOA samples only:**

No additional qualification required due to storage blank contamination.

**E) Tentatively Identified Compounds:**

Tentatively Identified Compounds (TICs) for TVOA organic fraction are not validated.

**5. MASS SPECTROMETER TUNING:**

**Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using**



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standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**6. CALIBRATION:**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. The response factor for the Target Compound List (TCL) must be  $\geq 0.05$ , and  $\geq 0.01$  for the poor performers in both the initial and opening continuing calibrations. For closing continuing calibration response factor for all target compounds must be  $\geq 0.01$ . A value  $< 0.05$  for target compounds or  $< 0.01$  for the poor performers indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound will be rejected "R".

No problems were found for this criterion.

**B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be  $\leq 30\%$  for all TCL analytes, and  $\leq 40\%$  for poor performers. %D must be  $\leq 30\%$  for all TCL analytes and  $\leq 40\%$  for the poor performers for opening CCV. %D must be  $\leq 50\%$  for all TCL analytes for closing CCV. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J". Non-detects are flagged "UJ" for %D values outside criteria only. If %RSD exceeds QC criteria, non-detects may be qualified using professional judgement. Qualifications were applied to the samples and analytes as shown below.

The following trace volatile samples are associated with an opening or closing CCV percent difference (%D) outside criteria. Detected compounds are qualified J. Non-detected compounds are qualified UJ.

**Bromoform** BBYG4, VBLK07

**7. INTERNAL STANDARDS PERFORMANCE GC/MS:**

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must



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be in the range of 60% - 140 % of the associated continuing calibration internal standard area. The retention time of the internal standards must not vary more than  $\pm$  20 seconds from the associated continuing calibration standard. If the area count is greater than 140%, all positive results quantitated using that IS are qualified as estimated "J-", and non-detects are not qualified. If the area count is less than 60% of the associated standard, all positive results for compounds quantitated with that IS are qualified as estimated "J+" and all non-detects are qualified "R".

If an internal standard retention time varies by more than 20 seconds, the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**8. FIELD DUPLICATES:**

Not applicable.

**9. COMPOUND IDENTIFICATION:**

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within a window of 0.06 RRT units of the standard compound and have ion spectra which has a ratio of the primary and secondary m/z intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**10. CONTRACT PROBLEMS NON-COMPLIANCE:**

No problems were found for this criterion.

**11. FIELD DOCUMENTATION:**

No problems were identified.

**12. OTHER PROBLEMS:**

None.

**13. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:**

Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable samples and analytes.

**ANALYSIS: HERBICIDE (MA # 2081.5)**



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The current SOP HW-17 (Revision 3.1) December 2010, USEPA Region II Data Validation SOP for evaluating organic data has been applied.

**1. HOLDING TIME :**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**2. SURROGATES**

All samples are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**3. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

The following herbicide matrix/matrix spike duplicate samples have percent recoveries that are greater than the upper acceptance limit. Detected compounds are qualified J. Non-detected compounds are not qualified.

**Dinoseb** BBYG5, BBYG5MS, BBYG5MSD

**4. LABORATORY CONTROL RECOVERY (LCS):**

The LCS data is generated to determine the long-term precision and accuracy of the analytical method. The LCS may be used in conjunction with other QC criteria for additional qualification of data.

No problems were found for this criterion.

**5. BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, field, or rinse blanks are prepared to identify any contamination, which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Depending



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on the concentration of the analyte in the blank, the analytes are qualified as non-detects, "U".

The following analytes in the sample shown were qualified "U" for these reasons:

**A) Method/Instrument blank contamination:**

No problems were found for this criterion.

**B) Field or rinse blank contamination:**

No problems were found for this criterion.

**6. CALIBRATION:**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

For the HERBCIDE fraction, if %RSD exceeds 25% for any analytes, qualify all associated positive results "J" and non-detected associated compounds are qualified "UJ". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**B) The Percent Difference (%D) for each of the analytes in the CCV must be greater than or equal to -25% and less than or equal to 25.0%. If Percent Difference exceeds  $\pm 25\%$ , detected associated compounds are qualified "J" and non-detected associated compounds are qualified "UJ". Qualifications were applied to the samples and analytes as shown below.**

No problems were found for this criterion.

**7. FIELD DUPLICATES:**

Not applicable.

**8. COMPOUND IDENTIFICATION:**

The retention times of reported compounds must fall within the calculated retention time windows for the two chromatographic columns and a GC/MS confirmation is required if the concentration exceeds 10ng/ml in the final sample extract. Qualifications were applied to the samples and analytes as shown below.

The following herbicide samples have percent differences between analyte results exceeding 90%. Using professional judgment, detected compounds are qualified J.

**Dinoseb** BBYG5, BBYG5MS, BBYG5MSD



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**9. CONTRACT PROBLEMS NON-COMPLIANCE:**

None.

**10. FIELD DOCUMENTATION:**

No problems were identified.

**11. OTHER PROBLEMS:**

None.

**12. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:**

Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable samples and analytes.



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732-906-6886 Phone  
732-906-6165 Fax**

November 13, 2014

Robert Stenson  
CTI & Associates  
P.O. Box 276  
Cleveland, WI 53015-0276

RE: Chemical Insecticide Corp. - 1409056

Enclosed are the results of analyses for samples received by the laboratory between 9/30/2014 and 10/2/2014. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 1409056 and contact John Birri by phone at 732-906-6886, or via Email at [birri.john@epa.gov](mailto:birri.john@epa.gov).

Sincerely,

A handwritten signature in black ink, reading "James Ferretti", is positioned above the typed name.

James Ferretti  
Acting Chief, DESA/LB



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**Region 2 Laboratory**

**Project: Chemical Insecticide Corp. - 1409056**

**Project Number: 1409056**

**Project Narrative:**

The National Environmental Laboratory Accreditation Conference Institute (TNI) is a voluntary environmental laboratory accreditation association of State and Federal agencies. TNI established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the TNI Standards.

**Condition Comments**

None

**Comment(s):**

None

**Data Qualifier(s):**

- U- The analyte was not detected at or above the Reporting Limit.
- J- The identification of the analyte is acceptable; the reported value is an estimate.
- K- The identification of the analyte is acceptable; the reported value may be biased high.
- L- The identification of the analyte is acceptable; the reported value may be biased low.
- NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.

**Reporting Limit(s):**

The Laboratory was able to achieve the appropriate limits for each analyte requested.



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**Region 2 Laboratory**

**Project: Chemical Insecticide Corp. - 1409056**

**Project Number: 1409056**

**SUMMARY REPORT FOR SAMPLES**

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
BBYE2	1409056-01	Aqueous	09/28/2014 14:10	09/30/2014 07:40
BBYE3	1409056-02	Aqueous	09/28/2014 14:10	09/30/2014 07:40
BBYE4	1409056-03	Aqueous	09/28/2014 16:31	09/30/2014 07:40
BBYE5	1409056-04	Aqueous	09/29/2014 11:10	09/30/2014 07:40
BBYE6	1409056-05	Aqueous	09/29/2014 12:45	09/30/2014 07:40
BBYE7	1409056-06	Aqueous	09/29/2014 13:30	09/30/2014 07:40
BBYE8	1409056-07	Aqueous	09/29/2014 15:40	09/30/2014 07:40
BBYE9	1409056-08	Aqueous	09/29/2014 13:55	09/30/2014 07:40
BBYF9	1410001-01	Aqueous	09/30/2014 15:04	10/01/2014 07:30
BBYG0	1410001-02	Aqueous	09/30/2014 15:35	10/01/2014 07:30
BBYE8	1410001-03	Aqueous	09/29/2014 15:40	10/01/2014 07:30
BBYF5	1410001-04	Aqueous	09/30/2014 11:38	10/01/2014 07:30
BBYF6	1410001-05	Aqueous	09/30/2014 14:15	10/01/2014 07:30
BBYF7	1410001-06	Aqueous	09/30/2014 14:35	10/01/2014 07:30
BBYF8	1410001-07	Aqueous	09/30/2014 12:45	10/01/2014 07:30
BBYF3	1410001-08	Aqueous	09/30/2014 10:10	10/01/2014 07:30
BBYF4	1410001-09	Aqueous	09/30/2014 10:10	10/01/2014 07:30
BBYG2	1410004-01	Aqueous	10/01/2014 09:35	10/02/2014 07:30
BBYG3	1410004-02	Aqueous	10/01/2014 13:50	10/02/2014 07:30
BBYG4	1410004-03	Aqueous	10/01/2014 12:25	10/02/2014 07:30
BBYG5	1410004-04	Aqueous	10/01/2014 14:45	10/02/2014 07:30



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**Region 2 Laboratory**

**Project: Chemical Insecticide Corp. - 1409056**

**Project Number: 1409056**

**SUMMARY REPORT FOR METHODS**

<b>Analysis</b>	<b>Method</b>	<b>Certification</b>	<b>Matrix</b>
Metals ICP TAL	EPA 200.7 SOP C-109 Rev3.2	NELAP	Aqueous
Metals ICPMS TAL	EPA 200.8 SOP C-112 Rev 3.2	NELAP	Aqueous
Pesticides SOM1.1 Superfund	EPA 608 SOP C-91 Rev3.2	NELAP	Aqueous



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Region 2 Laboratory

Project: Chemical Insecticide Corp. - 1409056

Project Number: 1409056

Analyte	Result	Qualifier	Reporting Limit	Units
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Field ID: BBYE2

Sample ID: 1409056-01

Pesticides GC

alpha-BHC	---	U	0.0049	ug/L
gamma-BHC (Lindane)	---	U	0.0049	ug/L
beta-BHC	---	U	0.0049	ug/L
delta-BHC	---	U J	0.0049	ug/L

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Field ID: BBYE3

Sample ID: 1409056-02

Pesticides GC

alpha-BHC	---	U	0.0051	ug/L
gamma-BHC (Lindane)	---	U	0.0051	ug/L
beta-BHC	---	U	0.0051	ug/L
delta-BHC	---	U J	0.0051	ug/L

Field ID: BBYE4

Sample ID: 1409056-03

Pesticides GC

alpha-BHC	---	U	0.0050	ug/L
gamma-BHC (Lindane)	---	U	0.0050	ug/L
beta-BHC	---	U	0.0050	ug/L
delta-BHC	---	U J	0.0050	ug/L

Metals ICPMS

Arsenic	2.4		1.0	ug/L
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Region 2 Laboratory

Project: Chemical Insecticide Corp. - 1409056

Project Number: 1409056

Analyte	Result	Qualifier	Reporting Limit	Units
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Field ID: BBYE5

Sample ID: 1409056-04

Pesticides GC

alpha-BHC	---	U	0.0047	ug/L
gamma-BHC (Lindane)	---	U	0.0047	ug/L
beta-BHC	---	U	0.0047	ug/L
delta-BHC	---	U J	0.0047	ug/L

Metals ICPMS

Arsenic	3.0		1.0	ug/L
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Field ID: BBYE6

Sample ID: 1409056-05

Pesticides GC

alpha-BHC	---	U	0.0051	ug/L
gamma-BHC (Lindane)	---	U	0.0051	ug/L
beta-BHC	---	U	0.0051	ug/L
delta-BHC	---	U J	0.0051	ug/L

Metals ICPMS

Arsenic	1.3		1.0	ug/L
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Field ID: BBYE7

Sample ID: 1409056-06

Pesticides GC

alpha-BHC	---	U	0.0047	ug/L
gamma-BHC (Lindane)	---	U	0.0047	ug/L
beta-BHC	---	U	0.0047	ug/L
delta-BHC	---	U J	0.0047	ug/L

Metals ICPMS



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Project Number: 1409056

Analyte	Result	Qualifier	Reporting Limit	Units
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Field ID: BBYE7

Sample ID: 1409056-06

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Field ID: BBYE8

Sample ID: 1409056-07

Pesticides GC

alpha-BHC	---	U	0.0049	ug/L
gamma-BHC (Lindane)	---	U	0.0049	ug/L
beta-BHC	---	U	0.0049	ug/L
delta-BHC	---	U J	0.0049	ug/L

Field ID: BBYE9

Sample ID: 1409056-08

Pesticides GC

alpha-BHC	---	U	0.0054	ug/L
gamma-BHC (Lindane)	---	U	0.0054	ug/L
beta-BHC	---	U	0.0054	ug/L
delta-BHC	---	U J	0.0054	ug/L

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Field ID: BBYF9

Sample ID: 1410001-01

Pesticides GC

alpha-BHC	---	U	0.0050	ug/L
gamma-BHC (Lindane)	---	U	0.0050	ug/L
beta-BHC	---	U	0.0050	ug/L



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Project Number: 1409056

Analyte	Result	Qualifier	Reporting Limit	Units
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Field ID: BBYF9

Sample ID: 1410001-01

Pesticides GC

delta-BHC	---	U J	0.0050	ug/L
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Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Field ID: BBYG0

Sample ID: 1410001-02

Pesticides GC

alpha-BHC	1.1		0.050	ug/L
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gamma-BHC (Lindane)	---	U	0.0050	ug/L
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beta-BHC	0.48		0.050	ug/L
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delta-BHC	2.4	J	0.10	ug/L
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Metals ICP

Arsenic	300		8.0	ug/L
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Field ID: BBYE8

Sample ID: 1410001-03

Metals ICPMS

Arsenic	2.6		1.0	ug/L
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Field ID: BBYF5

Sample ID: 1410001-04

Pesticides GC

alpha-BHC	0.026		0.0045	ug/L
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gamma-BHC (Lindane)	---	U	0.0045	ug/L
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beta-BHC	---	U	0.0045	ug/L
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delta-BHC	---	U J	0.0045	ug/L
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Project: Chemical Insecticide Corp. - 1409056

Project Number: 1409056

Analyte	Result	Qualifier	Reporting Limit	Units
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Field ID: BBYF5

Sample ID: 1410001-04

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Field ID: BBYF6

Sample ID: 1410001-05

Pesticides GC

alpha-BHC	---	U	0.0045	ug/L
gamma-BHC (Lindane)	---	U	0.0045	ug/L
beta-BHC	---	U	0.0045	ug/L
delta-BHC	---	U J	0.0045	ug/L

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Field ID: BBYF7

Sample ID: 1410001-06

Pesticides GC

alpha-BHC	0.56		0.046	ug/L
gamma-BHC (Lindane)	---	U	0.0046	ug/L
beta-BHC	0.24		0.046	ug/L
delta-BHC	2.1	J	0.093	ug/L

Metals ICPMS

Arsenic	4.0		1.0	ug/L
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Field ID: BBYF8

Sample ID: 1410001-07

Pesticides GC

alpha-BHC	0.0050		0.0046	ug/L
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Project Number: 1409056

Analyte	Result	Qualifier	Reporting Limit	Units
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Field ID: BBYF8

Sample ID: 1410001-07

Pesticides GC

gamma-BHC (Lindane)	---	U	0.0046	ug/L
beta-BHC	0.0051		0.0046	ug/L
delta-BHC	0.016	J	0.0046	ug/L

Metals ICPMS

Arsenic	1.7		1.0	ug/L
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Field ID: BBYF3

Sample ID: 1410001-08

Pesticides GC

alpha-BHC	0.025		0.0046	ug/L
gamma-BHC (Lindane)	0.029		0.0046	ug/L
beta-BHC	---	U	0.0046	ug/L
delta-BHC	0.0083	J	0.0046	ug/L

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Field ID: BBYF4

Sample ID: 1410001-09

Pesticides GC

alpha-BHC	0.027		0.0046	ug/L
gamma-BHC (Lindane)	0.019		0.0046	ug/L
beta-BHC	---	U	0.0046	ug/L
delta-BHC	0.0075	J	0.0046	ug/L

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Project Number: 1409056

Analyte	Result	Qualifier	Reporting Limit	Units
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Field ID: BBYG2

Sample ID: 1410004-01

Pesticides GC

alpha-BHC	0.43		0.046	ug/L
gamma-BHC (Lindane)	---	U	0.0046	ug/L
beta-BHC	---	U	0.0046	ug/L
delta-BHC	2.1	J	0.093	ug/L

Metals ICPMS

Arsenic	170		1.0	ug/L
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Field ID: BBYG3

Sample ID: 1410004-02

Pesticides GC

alpha-BHC	---	U	0.0045	ug/L
gamma-BHC (Lindane)	---	U	0.0045	ug/L
beta-BHC	---	U	0.0045	ug/L
delta-BHC	0.0063	J	0.0045	ug/L

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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Field ID: BBYG4

Sample ID: 1410004-03

Pesticides GC

alpha-BHC	---	U	0.0045	ug/L
gamma-BHC (Lindane)	---	U	0.0045	ug/L
beta-BHC	---	U	0.0045	ug/L
delta-BHC	---	U J	0.0045	ug/L

Metals ICPMS



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Project Number: 1409056

Analyte	Result	Qualifier	Reporting Limit	Units
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Field ID: BBYG4

Sample ID: 1410004-03

Metals ICPMS

Arsenic	1.6		1.0	ug/L
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Field ID: BBYG5

Sample ID: 1410004-04

Pesticides GC

alpha-BHC	---	U	0.0045	ug/L
gamma-BHC (Lindane)	---	U	0.0045	ug/L
beta-BHC	---	U	0.0045	ug/L
delta-BHC	---	U J	0.0045	ug/L

Metals ICPMS

Arsenic	---	U	1.0	ug/L
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### EXECUTIVE NARRATIVE

**Case No. :** 44719

**Site:** Chemical Insecticide Corp.

**Number of Samples:** 4 (Water)

**Analysis:** Herbicide (MA # 2081.5)

**SDG No.:** BBYE1

**Laboratory:** KAP

**Sampling dates:** 9/28/14-9/30/14

**Validation SOP:** HW-17(Rev.3.1)

#### **QAPP:**

**Contractor:** CTI and Associates, Inc.

**Reference:** DCN CIC-031111-001

#### **SUMMARY OF DEFINITIONS:**

**Critical:** Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "R" rejected.

**Major:** A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified "J" estimated "J+" and "J-" represent likely direction of the bias.

**Minor:** The level of uncertainty is acceptable. No significant bias in the data was observed.

#### **Critical Findings:**

None.

#### **Major Findings:**

Samples BBYF3, BBYF4 and BBYF5 have analytes that have been qualified "J", "J+" or "J-".

#### **Minor Findings:**

None.

**COMMENTS:** None.

**Reviewer Name(s):** Israel Okwuonu

**Approver's Signature:**

**Date:** 11/12/2014

**Name:**

**Narendra Kumar**

**Affiliation:** USEPA/R2/HWSB/HWSS



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**Data Qualifier Definitions (National Functional Guidelines)**

Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
<b>U</b>	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
<b>J</b>	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
<b>J+</b>	The result is an estimated quantity, but the result may be biased high.	The result is an estimated quantity, but the result may be biased high.	
<b>J-</b>	The result is an estimated quantity, but the result may be biased low.	The result is an estimated quantity, but the result may be biased low.	
<b>UJ</b>	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
<b>R</b>	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
<b>N</b>		The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".	
<b>NJ</b>		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
<b>C</b>		This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
<b>X</b>		This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.	



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## DATA ASSESSMENT

### ANALYSIS: HERB (MA # 2081.5)

The current SOP HW-17 (Revision 3.1) December 2010, USEPA Region II Data Validation SOP for evaluating organic data has been applied.

#### 1. HOLDING TIME :

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

#### 2. SURROGATES

All samples are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

The following pesticide samples have surrogate percent recoveries greater than 150%. Detected compounds are qualified J. Non-detected compounds are not qualified.

**2, 4-dichlorophenylacetic acid (DCAA)** BBYF3, BBYF3MS, BBYF3MSD, BBYF4  
Dinoseb

#### 3. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

The following pesticide matrix/matrix spike duplicate samples have percent recoveries that are greater than the upper criteria limit. Detected compounds are qualified J. Non-detected compounds are not qualified.

**Dinoseb** BBYF3, BBYF3MS, BBYF3MSD

The relative percent difference between pesticide analyte results is greater than the upper acceptance limit. Detected compounds are qualified J. Non-detected compounds are not qualified.

**Dinoseb** BBYF3, BBYF3MS, BBYF3MSD



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#### 4. LABORATORY CONTROL RECOVERY (LCS):

The LCS data is generated to determine the long-term precision and accuracy of the analytical method. The LCS may be used in conjunction with other QC criteria for additional qualification of data.

No problems were found for this criterion.

#### 5. BLANK CONTAMINATION:

Quality assurance (QA) blanks, i.e., method, field, or rinse blanks are prepared to identify any contamination, which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the concentration of the analyte in the blank, the analytes are qualified as non-detects, "U".

The following analytes in the sample shown were qualified "U" for these reasons:

##### A) Method/Instrument blank contamination:

No problems were found for this criterion.

##### B) Field or rinse blank contamination:

No problems were found for this criterion.

#### 6. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

##### A) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

For the HERBCIDE fraction, if %RSD exceeds 25% for any analytes, qualify all associated positive results "J" and non-detected associated compounds are qualified "UJ". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

B) The Percent Difference (%D) for each of the analytes in the CCV must be greater than or equal to -25% and less than or equal to 25.0%. If Percent Difference exceeds  $\pm 25\%$ , detected associated compounds are qualified "J" and non-detected associated compounds are qualified "UJ". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.



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**7. FIELD DUPLICATES:**

No problems were found for this criterion.

**8. COMPOUND IDENTIFICATION:**

The retention times of reported compounds must fall within the calculated retention time windows for the two chromatographic columns and a GC/MS confirmation is required if the concentration exceeds 10ng/ml in the final sample extract. Qualifications were applied to the samples and analytes as shown below.

The following pesticide samples have percent differences between analyte results in the range of 26-50%. Detected compounds are qualified J.

**Dinoseb** BBYF3MSD, BBYF4

The following pesticide samples have percent differences between analyte results exceeding 90%. Detected compounds are qualified R.

**Dinoseb** BBYF3MS

**9. CONTRACT PROBLEMS NON-COMPLIANCE:**

None.

**10. FIELD DOCUMENTATION:**

No problems were identified.

**11. OTHER PROBLEMS:**

None.

**12. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:**

Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable sample and analytes.

# Sample Summary Report

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE1	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	TB-1	pH:	2	Sample Date:	09/28/2014	Sample Time:	08:00:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	2.8	J	UG/L	2.8	J	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	9.8	NJ	UG/L	9.8	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE2	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	NUS-3S	pH:	2	Sample Date:	09/28/2014	Sample Time:	14:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2,2-Dimethyl-5,7-dinitro-1,3-diazaadamantane	TIC	2.8	NJ	UG/L	2.8	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE3	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	DUP-1	pH:	2	Sample Date:	09/28/2014	Sample Time:	14:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	9.9	NJ	UG/L	9.9	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE4	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	NUS-2D	pH:	2	Sample Date:	09/28/2014	Sample Time:	16:31:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	9.7	NJ	UG/L	9.7	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE5	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-4BR	pH:	2	Sample Date:	09/29/2014	Sample Time:	11:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.83		UG/L	0.83		1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE6	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	GU	pH:	2	Sample Date:	09/29/2014	Sample Time:	12:45:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.53		UG/L	0.53		1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE7	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-2S	pH:	2	Sample Date:	09/29/2014	Sample Time:	13:30:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	10	NJ	UG/L	10	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE8	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-2BR	pH:	2	Sample Date:	09/29/2014	Sample Time:	15:40:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYE9	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	BF-4	pH:	2	Sample Date:	09/29/2014	Sample Time:	13:55:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.31	J	UG/L	0.31	J	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	9.6	NJ	UG/L	9.6	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethyl 6-methyl-2-oxo-4-(2-thienyl)-1,2,3,4-tetrahydropyrimidine-5-carboxylate	TIC	8.6	NJ	UG/L	8.6	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF0	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	ER-1	pH:	2	Sample Date:	09/29/2014	Sample Time:	14:30:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	3.8	J	UG/L	3.8	J	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	10	NJ	UG/L	10	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF1	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	TB-2	pH:	2	Sample Date:	09/30/2014	Sample Time:	07:00:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	3.9	J	UG/L	3.9	J	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	8.1	NJ	UG/L	8.1	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF2	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-4S	pH:	2	Sample Date:	09/30/2014	Sample Time:	08:04:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.17	J	UG/L	0.17	J	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF3	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	QD	pH:	2	Sample Date:	09/30/2014	Sample Time:	10:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.16	J	UG/L	0.16	J	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	2.6		UG/L	2.6		1.0	Yes	S3VEM
Trichloroethene	Target	1.5		UG/L	1.5		1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.22	J	UG/L	0.22	J	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.46	J	UG/L	0.46	J	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.54		UG/L	0.54		1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	2.6		UG/L	2.6		1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF3	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	QD	pH:	5.9	Sample Date:	09/30/2014	Sample Time:	10:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	2.5	J	UG/L	2.5	P	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF3MS	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	S-6733.03	pH:	5.9	Sample Date:	09/30/2014	Sample Time:	10:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	2.8	R	UG/L	2.8	P	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF3MSD	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	S-6733.03	pH:	5.9	Sample Date:	09/30/2014	Sample Time:	10:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	3.1	J	UG/L	3.1	P	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF4	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	DUP-2	pH:	6.0	Sample Date:	09/30/2014	Sample Time:	10:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	2.6	J	UG/L	2.6	P	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF4	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	DUP-2	pH:	2	Sample Date:	09/30/2014	Sample Time:	10:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	2.0		UG/L	2.0		1.0	Yes	S3VEM
Trichloroethene	Target	1.3		UG/L	1.3		1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.41	J	UG/L	0.41	J	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.41	J	UG/L	0.41	J	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	1.6	J-	UG/L	1.6		1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	0.50	UJ	UG/L	8.5	NJ	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	NJ	UG/L	0.50	U	1.0	Yes	S3VE

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF4RE	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	DUP-2	pH:	2	Sample Date:	09/30/2014	Sample Time:	10:10:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	No	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	No	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Cyclohexane	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
1,2-Dichloroethane	Target	1.9		UG/L	1.9		1.0	No	S3VEM
Trichloroethene	Target	1.4		UG/L	1.4		1.0	No	S3VEM
Methylcyclohexa ne	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
1,2-Dichloropropane	Target	0.21	J	UG/L	0.21	J	1.0	No	S3VEM
Bromodichlorom ethane	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	No	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
trans-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
1,1,2-Trichloroethane	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	No	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Chlorobenzene	Target	0.42	J	UG/L	0.42	J	1.0	No	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
1,4-Dichlorobenzene	Target	0.51		UG/L	0.51		1.0	No	S3VEM
1,2-Dichlorobenzene	Target	2.0		UG/L	2.0		1.0	No	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	UJ	UG/L	0.50	U	1.0	No	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	No	S3VEM
cis-1,3-dichloropropene-d4	TIC	0.50	U	UG/L	10	NJ	1.0	No	S3VEM
1,2,3-Trichlorobenzene	Target	10	NJ	UG/L	0.50	U	1.0	No	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF5	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	FU	pH:	2	Sample Date:	09/30/2014	Sample Time:	11:38:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	UJ	UG/L	0.18	JB	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	6.1		UG/L	6.1		1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF5	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	FU	pH:	5.9	Sample Date:	09/30/2014	Sample Time:	11:38:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.25	J	UG/L	0.25		1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF6	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-7BR	pH:	2	Sample Date:	09/30/2014	Sample Time:	14:15:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.27	J	UG/L	0.27	J	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	1.2		UG/L	1.2		1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	2.3		UG/L	2.3		1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	1.6		UG/L	1.6		1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF7	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	BF-2D	pH:	2	Sample Date:	09/30/2014	Sample Time:	14:35:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	76		UG/L	76	E	1.0	No	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	9.2		UG/L	9.2		1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	25		UG/L	25	E	1.0	No	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	6.5		UG/L	6.5		1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	9.7		UG/L	9.7		1.0	Yes	S3VEM
1,2-Dichloroethane	Target	1.7		UG/L	1.7		1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.25	JB	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	14		UG/L	14		1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.18	JB	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	1.1		UG/L	1.1		1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.24	J	UG/L	0.24	J	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	1.3		UG/L	1.3		1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	1.3		UG/L	1.3		1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	10	NJ	UG/L	10	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclopentanone, 2,2,4-trimethyl-	TIC	3.5	NJ	UG/L	3.5	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF7DL	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	BF-2D	pH:	2	Sample Date:	09/30/2014	Sample Time:	14:35:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Chloromethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Vinyl chloride	Target	74		UG/L	74	D	10.0	Yes	S3VEM
Bromomethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Chloroethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Trichlorofluorom ethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,1-Dichloroethene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Acetone	Target	50	U	UG/L	50	U	10.0	No	S3VEM
Carbon disulfide	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Methyl acetate	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Methylene chloride	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
trans-1,2-Dichloroethene	Target	9.1		UG/L	9.1	D	10.0	No	S3VEM
Methyl tert-butyl ether	Target	23		UG/L	23	D	10.0	Yes	S3VEM
1,1-Dichloroethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
cis-1,2-Dichloroethene	Target	6.1		UG/L	6.1	D	10.0	No	S3VEM
2-Butanone	Target	50	U	UG/L	50	U	10.0	No	S3VEM
Bromochloromet hane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Chloroform	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,1,1-Trichloroethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Cyclohexane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Carbon tetrachloride	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Benzene	Target	10		UG/L	10	D	10.0	No	S3VEM
1,2-Dichloroethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Trichloroethene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Methylcyclohexa ne	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,2-Dichloropropane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Bromodichlorom ethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
4-Methyl-2-pentanone	Target	50	U	UG/L	50	U	10.0	No	S3VEM
Toluene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
trans-1,3-Dichloropropene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,1,2-Trichloroethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Tetrachloroethene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
2-Hexanone	Target	50	U	UG/L	50	U	10.0	No	S3VEM
Dibromochloromethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,2-Dibromoethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Chlorobenzene	Target	14		UG/L	14	D	10.0	No	S3VEM
Ethylbenzene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
o-Xylene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
m,p-Xylene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Styrene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Bromoform	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
Isopropylbenzene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,3-Dichlorobenzene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,4-Dichlorobenzene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,2-Dichlorobenzene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
1,2,4-Trichlorobenzene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
[2-(4-Dimethylaminocinnamoyl)-5-methylphenoxy]difluoroborane	TIC	77	DNJB	UG/L	77	DNJB	10.0	No	NV
1,2,3-Trichlorobenzene	Target	5.0	U	UG/L	5.0	U	10.0	No	S3VEM
cis-1,3-dichloropropene-d4	TIC	80	DNJ	UG/L	80	DNJ	10.0	No	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF8	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-6BR	pH:	2	Sample Date:	09/30/2014	Sample Time:	12:45:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.16	J	UG/L	0.16	J	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.54		UG/L	0.54		1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	2.1		UG/L	2.1		1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	3.1		UG/L	3.1		1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.52		UG/L	0.52		1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	8.4	NJ	UG/L	8.4	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF9	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	ER-2	pH:	2	Sample Date:	09/30/2014	Sample Time:	15:04:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYF9	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	ER-2	pH:	6.9	Sample Date:	09/30/2014	Sample Time:	15:04:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.25	U	UG/L	0.25	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYG0	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	BF-2	pH:	2	Sample Date:	09/30/2014	Sample Time:	15:35:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	6.7		UG/L	6.7		1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	6.3		UG/L	6.3		1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	7.2		UG/L	7.2		1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	30		UG/L	30	E	1.0	No	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	3.6		UG/L	3.6		1.0	Yes	S3VEM
1,2-Dichloroethane	Target	6.7		UG/L	6.7		1.0	Yes	S3VEM
Trichloroethene	Target	0.22	J	UG/L	0.22	J	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	14		UG/L	14		1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.54		UG/L	0.54		1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.25	J	UG/L	0.25	J	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	1.2		UG/L	1.2		1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	1.6		UG/L	1.6		1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.16	J	UG/L	0.16	J	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Indane	TIC	4.6	NJ	UG/L	4.6	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	BBYG0DL	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	BF-2	pH:	2	Sample Date:	09/30/2014	Sample Time:	15:35:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Chloromethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Vinyl chloride	Target	6.8		UG/L	6.8	D	5.0	No	S3VEM
Bromomethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Chloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Trichlorofluorom ethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1-Dichloroethene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Acetone	Target	25	U	UG/L	25	U	5.0	No	S3VEM
Carbon disulfide	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Methyl acetate	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Methylene chloride	Target	2.5	U	UG/L	0.85	DJB	5.0	No	S3VEM
trans-1,2-Dichloroethene	Target	6.1		UG/L	6.1	D	5.0	No	S3VEM
Methyl tert-butyl ether	Target	7.1		UG/L	7.1	D	5.0	No	S3VEM
1,1-Dichloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
cis-1,2-Dichloroethene	Target	30		UG/L	30	D	5.0	Yes	S3VEM
2-Butanone	Target	25	U	UG/L	25	U	5.0	No	S3VEM
Bromochloromet hane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Chloroform	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1,1-Trichloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Cyclohexane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Carbon tetrachloride	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Benzene	Target	3.9		UG/L	3.9	D	5.0	No	S3VEM
1,2-Dichloroethane	Target	6.9		UG/L	6.9	D	5.0	No	S3VEM
Trichloroethene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Methylcyclohexa ne	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2-Dichloropropane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Bromodichlorom ethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
4-Methyl-2-pentanone	Target	25	U	UG/L	25	U	5.0	No	S3VEM
Toluene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
trans-1,3-Dichloropropene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1,2-Trichloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Tetrachloroethene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
2-Hexanone	Target	25	U	UG/L	25	U	5.0	No	S3VEM
Dibromochloromethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2-Dibromoethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Chlorobenzene	Target	14		UG/L	14	D	5.0	No	S3VEM
Ethylbenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
o-Xylene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
m,p-Xylene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Styrene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Bromoform	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Isopropylbenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1,2,2-Tetrachloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,3-Dichlorobenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,4-Dichlorobenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2-Dichlorobenzene	Target	2.0	J	UG/L	2.0	DJ	5.0	No	S3VEM
1,2-Dibromo-3-chloropropane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2,4-Trichlorobenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
cis-1,3-dichloropropene-d4	TIC	51	DNJ	UG/L	51	DNJ	5.0	No	NV
1,2,3-Trichlorobenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	PBLK39	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	PBLK39	pH:		Sample Date:	10/20/2014	Sample Time:	16:53:00
% Moisture :	0.00			% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.25	U	UG/L	0.25	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	PLCS39	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	PLCS39	pH:		Sample Date:	10/20/2014	Sample Time:	17:11:00
% Moisture :	0.00			% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.51		UG/L	0.51		1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	VBLK07	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	VBLK07	pH:		Sample Date:	10/08/2014	Sample Time:	21:57:00
% Moisture :	% Solids :						

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.20	J	UG/L	0.20	J	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.25	J	UG/L	0.25	J	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.22	J	UG/L	0.22	J	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.25	J	UG/L	0.25	J	1.0	Yes	S3VEM
3-(4-Methylpiperazin-1-yl)-N-(4-trifluoromethoxy-phenyl)-propionamide	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	VBLK11	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	VBLK11	pH:		Sample Date:	10/09/2014	Sample Time:	16:51:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.17	J	UG/L	0.17	J	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	VBLK15	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	VBLK15	pH:		Sample Date:	10/10/2014	Sample Time:	15:25:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.088	J	UG/L	0.088	J	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.038	J	UG/L	0.038	J	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.030	J	UG/L	0.030	J	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.13	J	UG/L	0.13	J	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.14	J	UG/L	0.14	J	1.0	Yes	S3VEM
[2-(4-Dimethylaminocinnamoyl)-5-methylphenoxy]difluoroborane	TIC	2.2	NJ	UG/L	2.2	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	VBLK23	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	VBLK23	pH:		Sample Date:	10/16/2014	Sample Time:	12:11:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.51		UG/L	0.51		1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	10	NJ	UG/L	10	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYE1	Lab Code:	KAP
Sample Number:	VHBLK01	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	S-6729.11	pH:		Sample Date:	10/16/2014	Sample Time:	12:42:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.58		UG/L	0.58	B	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJB	UG/L	11	NJB	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM



# Sample Summary Report

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG1	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	TB-3	pH:	2	Sample Date:	10/01/2014	Sample Time:	06:30:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	48		UG/L	48		1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
3-(4-Methylpiperazin-1-yl)-N-(4-trifluoromethoxyphenyl)propionamide	TIC	1.5	NJB	UG/L	1.5	NJB	1.0	Yes	NV
cis-1,3-dichloropropene-d4	TIC	9.2	NJ	UG/L	9.2	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG2	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-5BR	pH:	2	Sample Date:	10/01/2014	Sample Time:	09:35:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	44		UG/L	44	E	1.0	No	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	5.5		UG/L	5.5		1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	36		UG/L	36	E	1.0	No	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	4.5		UG/L	4.5		1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	16		UG/L	16		1.0	Yes	S3VEM
1,2-Dichloroethane	Target	4.4		UG/L	4.4		1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.30	J	UG/L	0.30	J	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	14		UG/L	14		1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.19	J	UG/L	0.19	J	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	1.9		UG/L	1.9		1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.25	J	UG/L	0.25	J	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	1.2		UG/L	1.2		1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.93		UG/L	0.93		1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV
Cyclopentanone, 2,2,4-trimethyl-	TIC	9.1	NJ	UG/L	9.1	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG2DL	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-5BR	pH:	2	Sample Date:	10/01/2014	Sample Time:	09:35:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Chloromethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Vinyl chloride	Target	45		UG/L	45	D	5.0	Yes	S3VEM
Bromomethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Chloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Trichlorofluorom ethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1-Dichloroethene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Acetone	Target	25	U	UG/L	25	U	5.0	No	S3VEM
Carbon disulfide	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Methyl acetate	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Methylene chloride	Target	2.5	U	UG/L	1.6	DJB	5.0	No	S3VEM
trans-1,2-Dichloroethene	Target	5.3		UG/L	5.3	D	5.0	No	S3VEM
Methyl tert-butyl ether	Target	32		UG/L	32	D	5.0	Yes	S3VEM
1,1-Dichloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
cis-1,2-Dichloroethene	Target	4.0		UG/L	4.0	D	5.0	No	S3VEM
2-Butanone	Target	25	U	UG/L	25	U	5.0	No	S3VEM
Bromochloromet hane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Chloroform	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1,1-Trichloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Cyclohexane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Carbon tetrachloride	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Benzene	Target	17		UG/L	17	D	5.0	No	S3VEM
1,2-Dichloroethane	Target	4.6		UG/L	4.6	D	5.0	No	S3VEM
Trichloroethene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Methylcyclohexa ne	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2-Dichloropropane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Bromodichlorom ethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
4-Methyl-2-pentanone	Target	25	U	UG/L	25	U	5.0	No	S3VEM
Toluene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
trans-1,3-Dichloropropene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,1,2-Trichloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Tetrachloroethene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
2-Hexanone	Target	25	U	UG/L	25	U	5.0	No	S3VEM
Dibromochloromethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2-Dibromoethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Chlorobenzene	Target	15		UG/L	15	D	5.0	No	S3VEM
Ethylbenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
o-Xylene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
m,p-Xylene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Styrene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Bromoform	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
Isopropylbenzene	Target	1.3	J	UG/L	1.3	DJ	5.0	No	S3VEM
1,1,2,2-Tetrachloroethane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,3-Dichlorobenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,4-Dichlorobenzene	Target	1.3	J	UG/L	1.3	DJ	5.0	No	S3VEM
1,2-Dichlorobenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2-Dibromo-3-chloropropane	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2,4-Trichlorobenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
1,2,3-Trichlorobenzene	Target	2.5	U	UG/L	2.5	U	5.0	No	S3VEM
cis-1,3-dichloropropene-d4	TIC	63	DNJ	UG/L	63	DNJ	5.0	No	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG3	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-3S	pH:	2	Sample Date:	10/01/2014	Sample Time:	13:50:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	1.9	J	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	9.8	NJ	UG/L	9.8	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG4	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	MW-3BR	pH:	2	Sample Date:	09/30/2014	Sample Time:	12:25:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	10	NJ	UG/L	10	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG5	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	ER-3	pH:	7.0	Sample Date:	10/01/2014	Sample Time:	14:45:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.25	U	UG/L	0.25	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG5	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	ER-3	pH:	2	Sample Date:	10/01/2014	Sample Time:	14:45:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG5MS	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	S-6736.05	pH:	7.0	Sample Date:	10/01/2014	Sample Time:	14:45:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.64	J	UG/L	0.64	P	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG5MSD	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	S-6736.05	pH:	7.0	Sample Date:	10/01/2014	Sample Time:	14:45:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.69	J	UG/L	0.69	P	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	BBYG6	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	FU Resample	pH:	5.9	Sample Date:	10/01/2014	Sample Time:	16:35:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.25	U	UG/L	0.25	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	PBLK39	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	PBLK39	pH:		Sample Date:	10/20/2014	Sample Time:	16:53:00
% Moisture :	0.00			% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.25	U	UG/L	0.25	U	1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	PLCS39	Method:	Pest	Matrix:	Water	MA Number:	2081.5
Sample Location:	PLCS39	pH:		Sample Date:	10/20/2014	Sample Time:	17:11:00
% Moisture :	0.00			% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dinoseb	Target	0.51		UG/L	0.51		1.0	Yes	S3VEM

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	VBLK07	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	VBLK07	pH:		Sample Date:	10/08/2014	Sample Time:	21:57:00
% Moisture :	% Solids :						

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.20	J	UG/L	0.20	J	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	UJ	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.25	J	UG/L	0.25	J	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.22	J	UG/L	0.22	J	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.25	J	UG/L	0.25	J	1.0	Yes	S3VEM
3-(4-Methylpiperazin-1-yl)-N-(4-trifluoromethoxyphenyl)-propionamide	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	VBLK11	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	VBLK11	pH:		Sample Date:	10/09/2014	Sample Time:	16:51:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.17	J	UG/L	0.17	J	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	11	NJ	UG/L	11	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	VBLK15	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	VBLK15	pH:		Sample Date:	10/10/2014	Sample Time:	15:25:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.088	J	UG/L	0.088	J	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.038	J	UG/L	0.038	J	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.030	J	UG/L	0.030	J	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.13	J	UG/L	0.13	J	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.14	J	UG/L	0.14	J	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	12	NJ	UG/L	12	NJ	1.0	Yes	NV
[2-(4-Dimethylaminocinnamoyl)-5-methylphenoxy]difluoroborane	TIC	2.2	NJ	UG/L	2.2	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	VBLK23	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	VBLK23	pH:		Sample Date:	10/16/2014	Sample Time:	12:11:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.51		UG/L	0.51		1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	10	NJ	UG/L	10	NJ	1.0	Yes	NV

Case No:	44719	Contract:	EPW11031	SDG No:	BBYG1	Lab Code:	KAP
Sample Number:	VHBLK01	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	S-6736.07	pH:		Sample Date:	10/16/2014	Sample Time:	17:52:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoro methane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Vinyl chloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromomethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichlorofluorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Acetone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Carbon disulfide	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl acetate	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylene chloride	Target	0.15	J	UG/L	0.15	JB	1.0	Yes	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methyl tert-butyl ether	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Butanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Bromochloromet hane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chloroform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Cyclohexane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Carbon tetrachloride	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Benzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Trichloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Methylcyclohexa ne	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromodichlorom ethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Toluene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Tetrachloroethene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
2-Hexanone	Target	5.0	U	UG/L	5.0	U	1.0	Yes	S3VEM
Dibromochloromethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromoethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Chlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Ethylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
o-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
m,p-Xylene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Styrene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Bromoform	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
Isopropylbenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
1,2,4-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM
cis-1,3-dichloropropene-d4	TIC	10	NJ	UG/L	10	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	UG/L	0.50	U	1.0	Yes	S3VEM

